Key to Icons


Web site.*


Interagency agreement.

436.01 Introduction

This chapter describes the policies and procedures related to wildlife, fish, and vegetation that apply to WSDOT projects, particularly the implications of Endangered Species Act (ESA) species listings. It includes information on requirements related to threatened and endangered species and critical habitats, as well as non-listed wildlife, fish, and vegetation. This chapter does not discuss roadside vegetation design and management. Please refer to the WSDOT *Roadside Manual* (M 25-30) for this information.

WSDOT's primary goal is to provide safe, efficient, dependable and environmentally responsible transportation facilities and services. WSDOT is committed to preserving, protecting, and enhancing the state's natural resources while operating, maintaining, and improving the state's transportation system. WSDOT biologists are involved in all stages of project development, evaluating potential adverse impacts and recommending impact avoidance or minimization measures.

Sensitive wildlife, fish, plants, and their habitat require special consideration during project planning and development.

Areas of particular concern include:

- Direct effects from construction such as noise disturbance or other disruption of habitat areas.
- Interference to critical life functions such as wintering, foraging, migration, breeding and/or rearing.
- Degradation or loss of habitat.
- Habitat fragmentation and edge effects.
- Effects related to collisions between vehicles and animals.

* Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

- Loss of animal or plant populations.
- Impacts to food resources.
- Water quality impacts.
- Effects on migration or dispersal of organisms including mammals, reptiles, amphibians, fish, insects, and/or ground-dwelling birds, where the project could create or exacerbate barriers to movement.

Chapters on water quality (**Chapter 431**) and wetlands (**Chapter 437**) are also relevant to consideration of fish and wildlife issues.

Road projects are the focus of this section. However, these or similar policies, permits, and procedures also apply to other transportation projects. Issues specific to ferries, airports, rail, and non-motorized transport are addressed in **Section 436.07**.

(1) Summary of Requirements

If a transportation project involves federal funds or permits, or if it is on federal lands, it is said to have a federal nexus. If the project has a federal nexus, it must comply with NEPA and Section 7 of the ESA. All projects, regardless of funding source, must comply with Section 9 of the ESA; SEPA, as supplemented in 1983, RCW 43.21C; *SEPA Rules*, WAC 197-11; and local ordinances.

Salmonid listings under the ESA have triggered the development of new policies and requirements at all jurisdictional levels. Because agencies and municipalities are actively creating strategies to address the ESA listings, this section will be updated regularly as policies and regulations change.

(2) Abbreviations and Acronyms

Abbreviations and acronyms specific to this chapter are listed below. Others are found in the general list in **Appendix A**.

BA	Biological Assessment
BE	Biological Evaluation
BO	Biological Opinion
BMP	Best Management Practice
BLM	Bureau of Land Management
EFH	Essential Fish Habitat
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FMP	Fishery Management Plan
GHPA	General Hydraulic Project Approval
HPA	Hydraulic Project Approval
IA	Implementing Agreement
JARPA	Joint Aquatic Resources Permit Application
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MSA	Magnuson-Stevens Act
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
NFP	Northwest Forest Plan
NOAA Fisheries	National Oceanic and Atmospheric Administration (National Marine Fisheries Service)

NWP	Nationwide Permit
OHWM	Ordinary high water mark or line
PBA	Programmatic Biological Assessment
PHS	Priority Habitats & Species
PFMC	Pacific Fishery Management Council
RPA	Reasonable and Prudent Alternative
TFW	Timber, Fish, & Wildlife
USFWS	U.S. Fish & Wildlife Service
WDFW	Washington State Department of Fish and Wildlife
WNHP	Washington Natural Heritage Program

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Anadromous Fish – Species that hatch in freshwater, mature in saltwater, and return to freshwater to spawn.

Aquifer Recharge Area – Area which has a critical replenishing effect on aquifers used for potable water.

Baffle – Flow-deflecting structure that provides low-velocity resting water for the passage of fish.

Candidate Species – Any species of fish, wildlife, or plant considered for possible addition to the list of endangered and threatened species. These are *taxa* for which NOAA Fisheries or USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions.

Cumulative Effects – Effects of future state, local, or private actions that are reasonably certain to occur in the action area.

Critical Habitat – Specific area occupied by a listed species within its geographic range, which contains the physical or biological features essential to the conservation of the species and which may require special protection or management considerations.

Endangered Species – Any species which is in danger of extinction throughout all or a significant portion of its range.

Evolutionarily Significant Unit – A designation used by NOAA Fisheries for certain local salmon populations or "runs" which are treated as individual species under the Endangered Species Act. This is equivalent to the U.S. Fish and Wildlife Service (USFWS) "Distinct Population Segment" classification.

Federal Nexus – When the federal government is connected to a project either by owning land within the project limits, providing project funding, or by requiring a permit.

Habitat – Place where a plant or animal naturally or normally completes its life cycle.

Incidental Take – Take of listed species that results from, but is not the intention of, carrying out an otherwise lawful activity.

Indirect Effects – Effects caused by or resulting from the proposed action but that occur later in time, including effects resulting from associated development and other activities that occur following improvements in transportation.

Interdependent Effects – Effects caused by actions that have no independent utility apart from the proposed action.

Interrelated Effects – Effects created by a proposed action that would not occur "but for" that action.

Jurisdiction – Governing authority which interprets and applies laws and regulations.

Large Woody Debris – Conifer or deciduous logs, limbs, or root wads of a certain diameter which interact with the stream channel and contribute to the habitat diversity of the stream.

Late-Successional – Stage in forest development that includes mature and old growth forest and associated plant and animal species.

Listed Species – Any species of fish, wildlife, or plant which has been determined to be endangered or threatened under Section 4 of the ESA.

Old Growth – Forest stand with moderate to high canopy closure; a multilayered, multispecies canopy dominated by large overstory trees; a high incidence of large trees with large, broken tops, and other indications of decadence; numerous large snags and heavy accumulations of logs and other woody debris on the ground.

Programmatic Biological Assessment – A biological assessment designed to cover programs, not specific projects.

Proposed Species – Any species of fish, wildlife, or plant that is proposed by NOAA Fisheries or USFWS for federal listing under Section 4 of the ESA.

Salmonid – Fish of the family *Salmonidae* which include salmon and trout.

Take – Defined under the ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct,” including modification to a species' habitat.

Threatened Species – Any species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Viability – Ability of a population to maintain sufficient size so it persists over time in spite of normal fluctuations in numbers; usually expressed as a probability of maintaining a specific population for a defined period.

Watershed – Basin including all water and land areas that drain to a common body of water.

436.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to fish and wildlife habitat issues. See **Appendix D** for an index of statutes referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in **Section 436.06**.

(1) Federal

(a) National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts related to fish and wildlife are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) Endangered Species Act (ESA)

The criteria for determining threatened and endangered plant and animal species is provided by the ESA of 1973, which is administered by NOAA Fisheries and USFWS. The goals of the ESA include species conservation, ecosystem conservation, and species recovery.

Section 4 of the ESA allows for the listing of species as threatened or endangered based on habitat loss or degradation, overutilization, disease or predation, inadequacy of existing regulation mechanisms, or other human-caused factors. Section 4(d) allows for the promulgation of regulations to provide for the protection and conservation of listed species. It may allow for the "take" of threatened species.

Section 7 of the ESA requires each federal agency to ensure its actions to authorize, permit, or fund a project do not jeopardize the continued existence of any threatened or endangered species. It describes consultation procedures and conservation obligations.

Section 9 of the ESA prohibits a “take” of listed species. “Take” is defined as to “harass, harm, pursue, hunt, shoot, wound, kill, capture, or collect or attempt to engage in such conduct” (1532(18)). An exception to the “take” prohibition applies to endangered plants on non-federal lands, unless the taking is in knowing violation of state law (1538(a)(2)).

The habitat of listed species is also protected under Section 9. This prohibition is broadly defined and applies to privately and publicly owned lands. Under USFWS regulations, Section 9 applies to all threatened and endangered species. Under NOAA Fisheries regulations, Section 9 applies to all endangered species. NOAA Fisheries evaluates each threatened species under its jurisdiction on a species by species basis to determine whether or not the “take” prohibition will apply. Section 4d of the ESA allows for each service (USFWS and NOAA Fisheries) to develop special rules (4d rules) which apply a more appropriate level of protection for each threatened species. These protections may be less restrictive than those under Section 9.

Because of the habitat requirements of salmonids, planning processes under the ESA and the federal Clean Water Act (CWA) are becoming increasingly integrated. The U.S. Environmental Protection Agency (USEPA) and Washington State Department of Ecology (Ecology) are working to ensure that water quality permits and procedures meet the goals and requirements of the ESA. NOAA Fisheries, USFWS, and USEPA are

increasing coordination efforts and are reviewing permit requirements, like those in Sections 402 and 404 of the CWA, which could affect listed salmonids. As a result, procedures and policies related to water quality could be modified. As these changes occur, updates will be made in **Chapter 431**. Regulations pertaining to wetlands also overlap with ESA requirements because wetlands could be habitat for federally listed plants and animals. USFWS has an important role in reviewing permits and regulations pertaining to wetlands. The details of wetland permitting are covered in **Section 437.06**.

The ESA can be viewed at:

http://www4.law.cornell.edu/uscode/

Click on Title 16, then Chapter 35, Endangered Species Act of 1973.

Or by direct link:

http://www4.law.cornell.edu/uscode/16/ch35.html

A good summary of this statute can be found at the USFWS web site:

http://www.fws.gov/

Click on Endangered, then ESA and what we can do.

Or by direct link:

http://laws.fws.gov/lawsdigest/esact.html

(c) National Forest Management Act

The primary goal of the National Forest Management Act (NFMA, 16 USC 1604 (g)(3)(B)) is to maintain multiple use and species diversity on federal forest lands. The NFMA applies directly to lands administered by the U.S. Forest Service (USFS), but also provides direction for Bureau of Land Management (BLM) land management plans. The BLM and USFS have integrated NEPA requirements with their land management regulations.

The NFMA is described online at:

http://www.fs.fed.us/

Enter National Forest Management Act in the Search box.

Or by direct link:

http://www.fs.fed.us/r2/nebraska/gpng/cfr219.html

The USFS has developed forest-specific "forest plans" which identify "species of concern" found within that forest. This list is comprised of several categories of species such as federally listed species, USFS sensitive species, survey and manage species, and state-listed species. Forest plans can cover a wide range of species (e.g. slugs, lichens, mammals). Staff of each forest decide which designated species to include on its species of concern list. Different requirements are associated with

different species ranking; however, actions on federal land must always comply with the ESA.

The Northwest Forest Plan (NFP) is a management plan affecting federal forest lands within the range of the northern spotted owl in western Washington, Oregon, and northern California. The standards and guidelines set forth in this plan supersede any existing forest plans within the range of the spotted owl. The NFP also applies directly to National Forests without existing, approved forest plans within the range of the spotted owl. The goals of this plan include: maintaining late-successional and old growth habitat and ecosystems, maintaining biological diversity, restoring and maintaining ecological health of watersheds, and promoting regional economic stability by providing a sustainable supply of timber and other forest products. All WSDOT projects occurring on federal forest lands within the range of the northern spotted owl must follow the standards and guidelines within the NFP.

The following web site contains the NFP:

http://www.or.blm.gov/

Click on Northwest Forest Plan.

Or by direct link:

http://www.or.blm.gov/nwfp.htm

(d) Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 USC 661-667 (e)) authorizes the USFWS, NOAA Fisheries, and the Washington State Department of Fish and Wildlife (WDFW) to investigate all proposed federal and non-federal actions needing a federal permit or license, which would impound, divert, deepen, or otherwise control or modify a stream or other body of water and to make mitigation or enhancement recommendations. The primary goal of this act is to incorporate wildlife conservation with water resource development programs (see the Fish and Wildlife Coordination Flowchart, FHWA, 1998 in **Exhibit 436-1**).

The statute can be viewed at:

http://www4.law.cornell.edu/uscode/

Click on Table of Popular Names, then Part 13, then Fish and Wildlife Coordination Act.

Or by direct link:

http://www4.law.cornell.edu/uscode/16/661.html

A good summary of this statute can be found at:

http://www.fws.gov/

Click on Habitat, then Branch of Federal Activities, then Fish and Wildlife Coordination Act.

Or by direct link:

http://laws.fws.gov/lawsdigest/fwcoord.html

(e) *Migratory Bird Treaty Act*

This federal law, administered by the USFWS, makes it unlawful to take, import, export, possess, sell, purchase, or barter any migratory bird, with the exception of the taking of game birds during established hunting seasons. The law also applies to feathers, eggs, nests, and products made from migratory birds. This law is of particular concern when birds nest on bridges, buildings, signs, and ferry dock structures. WSDOT is developing guidance on avoiding active nests during highway construction or bridge maintenance, and other relevant issues to ensure compliance with the Migratory Bird Treaty Act.

Signed by President Bill Clinton effective January 10, 2001, Executive Order 13186 outlines federal agency responsibilities for protecting migratory birds under the Migratory Bird Treaty Act and other statutes. It requires the FHWA to enter into a MOU with the USFWS on protecting a wide range of migratory bird species; this MOU is not yet finalized. The Executive Order is online at:

http://www.epa.gov/owow/wetlands/regs/eo13186.pdf

The Act itself can be viewed at:

http://www4.law.cornell.edu/uscode/

Click on Table of Popular Names, then Part 18, select Migratory Bird Treaty Act.

Or by direct link:

http://www4.law.cornell.edu/uscode/16/703.html

A good summary of this statute can be found at:

http://www.fws.gov/

Click on Conserving Wildlife and Habitats, then Laws, then Resource, then Migratory Bird Treaty Act.

Or by direct link:

http://laws.fws.gov/lawsdigest/migtrea.html

(f) *Bald and Golden Eagle Protection Act*

This federal law, administered by the USFWS, makes it unlawful to take, import, export, sell, purchase, or barter any bald or golden eagle, their parts, products, nests, or eggs. "Take" includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing the eagles. Permits may be issued by the USFWS for scientific or exhibition use, or for traditional and cultural use by Native Americans. All WSDOT projects must be in compliance with the Bald and Golden Eagle Protection Act.

The statute can be viewed at:

http://www4.law.cornell.edu/uscode/

Click on Table of Popular Names, then Part 3, select Bald Eagle Protection Act.

Or by direct link:

http://www4.law.cornell.edu/uscode/16/668.html

A good summary of this statute can be found at:

http://www.fws.gov/

Click on Birds; then Laws, Regulations, and Policy; then Laws and Acts; then Bald Eagle Protection Act.

Or by direct link:

http://laws.fws.gov/lawsdigest/baldegl.html

(g) Marine Mammal Protection Act

This 1972 law establishes federal responsibility for conservation and management to protect marine mammals. It establishes a moratorium on the taking and importation of marine mammals and marine mammal products. It also encourages creation of international agreements for research and conservation of these species. The statute can be viewed at:

http://www4.law.cornell.edu/uscode/

Click on Table of Popular Names, then Part 18, and select Marine Mammal Protection Act of 1972.

Or by direct link:

http://www4.law.cornell.edu/uscode/16/1361.html

A good summary of this statute can be found at:

http://www.fws.gov/

Click on Policies, then Resource Laws, then, Resource, then Marine Mammal Protection Act of 1972.

Or by direct link:

http://laws.fws.gov/lawsdigest/marmam.html

(h) Fishery Conservation and Management Act (Magnuson-Stevens Act)

Under the Fishery Conservation and Management Act of 1976, NOAA Fisheries was given legislative authority to regulate the fisheries of the United States. The Act also established eight Regional Fisheries Management Councils. These Councils prepared Fishery Management Plans (FMPs) to govern their management activities which were submitted to NOAA Fisheries for approval. In 1996, this Act was amended to emphasize the sustainability of the nation's fisheries and create a new habitat conservation approach. This habitat is called Essential Fish Habitat (EFH). The Act is now known as the Magnuson-Stevens Act.

In 1999 and 2000, the Pacific Fishery Management Council (PFMC) added provisions for the protection of EFH to three FMPs (Coastal Pelagics, Groundfish, and Pacific Coast Salmonids) in the Pacific Northwest. EFH is defined by Congress as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 USC 1802(10)).

The Pacific salmon fishery management unit includes Chinook (*Oncorhynchus tshawytscha*), coho (*Oncorhynchus kisutch*), and pink salmon (*Oncorhynchus gorbuscha*). This designation is not limited to federally listed species. The west coast groundfish management unit includes 83 species that typically live on or near the ocean floor. Species groups include skates and sharks, rockfish, flatfish, and groundfish. The west coast pelagics management unit includes those species primarily associated with the open ocean and coastal areas such as the pacific sardine (*Sardinops sagax*), pacific chub (*Scomber japonicus*) and several others.

Federal agencies must consult with NOAA Fisheries on all activities, or proposed activities, authorized, funded, or undertaken by the agency that may adversely affect EFH. WSDOT Guidance on EFH consultations can be found in **Section 436.05(4)**. Information on EFH can be found at the NOAA Fisheries homepage:

http://www.nmfs.noaa.gov/

Click on Conserving Marine Habitat, then Habitat Protection Division, then Essential Fish Habitat.

Or by direct link:

http://www.nmfs.noaa.gov/habitat/habitatprotection/essentialfishhabitat.htm

(2) Tribal

Projects on tribal lands may be subject to tribal laws that regulate fish, wildlife, and habitat. Projects not on tribal land could affect treaty-reserved resources or species of tribal significance. The appropriate tribal biologist should be contacted to discuss any regulations that may apply to the project.

(3) State

(a) State Environmental Policy Act

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts related to fish and wildlife are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) Forest Practices Act

The Forest Practices Act is directed towards timber harvesting and reforestation on non-federal forestland. It regulates forest management related activities such as road construction, pesticide and herbicide use, and work in waters of the United States.

In addition to Forest Practices requirements, Timber, Fish and Wildlife (TFW) caucuses (including federal and state agencies, local authorities, tribes, and the timber industry) have produced the *Forest and Fish Report* (April 1999). This report was an attempt by TFW to address the recent ESA listings of salmonids by introducing new regulations and guidelines to ensure ESA compliance for activities on non-federal forest land. The Forest Practices Board adopted emergency rules consistent with the *Forest and Fish Report*. These emergency rules have been combined with the permanent forest practices rules in the *Washington Forest Practices Rule Book*, April 2000. Currently the Forest Practices Board is conducting a comprehensive revision of the permanent forest practices rules based on the following goals:

- To provide ESA compliance for aquatic and riparian-dependant species on state-owned and private forest lands.
- To restore and maintain riparian habitat on state-owned and private forest lands to support a harvestable supply of fish.
- To meet the requirements of the CWA for water quality on state-owned and private forest lands.
- To keep the timber industry economically viable in Washington State.

Information on the Forest Practices Act can be found at:

http://dnr.wa.gov

Click on Forest Practices Board, then click the Forest Practices Act PDF file.

Or by direct link:

http://www.dnr.wa.gov/forestpractices/rules/rcw76.09.pdf

(c) Bald Eagle Protection Rules

The Bald Eagle Protection Rules (WAC 232-12-292) are designed to protect eagle habitat and thereby increase and maintain eagle populations. The rules promote cooperative habitat management between state and federal agencies and private landowners.

(d) Fish Passage Law

This law (RCW 77.55.060), and implementing regulations (WAC 220-110-070) require that any dam or other obstruction across or in a stream shall be provided with a durable and efficient fishway approved by WDFW. The fishway must be maintained and continuously supplied with sufficient water to freely pass fish.

The statute can be accessed online at:

http://www.leg.wa.gov/rcw/index.cfm

Click on Title 77, then 77.55, then 77.55.060

Or by direct link:

http://www.leg.wa.gov/RCW/index.cfm?section=77.55.060&fuseaction=section

The regulations are online at:

http://www.leg.wa.gov/wac/

Click on Title 220, then 110, then 110-070

Or by direct link:

http://www.leg.wa.gov/WAC/index.cfm?section=220-110-070&fuseaction=section

(e) Shoreline Management Act

The goal of Washington's Shoreline Management Act (RCW 90.58) is "to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines." The Act establishes a broad policy of shoreline protection, which includes fish and wildlife habitat.

The SMA uses a combination of policies, comprehensive planning, and zoning to create a special zoning code overlay for shorelines. Under the SMA, each city and county can adopt a shoreline master program that is based on state guidelines but tailored to the specific geographic, economic and environmental needs of the community. Master programs provide policies and regulations addressing shoreline use and protection as well as a permit system for administering the program.

Please refer to **Section 452.02** for more details about the SMA and local Shoreline Master Programs. To reference the statute, see the web site below:

http://slc.leg.wa.gov/

Click on RCW, then Title 90, then 90.58, Shoreline Management Act.

Or by direct link:

http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapter=90.58

(4) Local Comprehensive Plans and Critical Area Ordinances (CAO)

Washington's Growth Management Act of 1990 (GMA) requires counties and cities to take a comprehensive, cooperative approach to land use planning. The focus of the GMA is to avoid unplanned growth, and conserve natural resources, while allowing for economic development. Under the GMA, counties, cities, and towns must classify, designate, and regulate critical areas through Critical Areas Ordinances (CAOs). Any of the five types of critical areas may serve as fish, wildlife, or sensitive plant habitat:

- Wetlands

- Aquifer recharge areas
- Frequently flooded areas
- Geologically hazardous areas
- Fish and wildlife habitat conservation areas

All regulated habitat areas should be identified during the project development phase. Some local jurisdictions may have fish and wildlife habitat regulation inventory maps. These maps identify what types of habitat the jurisdiction regulates, indicate where all the inventoried habitat areas are, and identify the regulations relating to the management and development of these areas. If available, these maps should be reviewed to help identify critical areas.

The GMA also requires counties and cities that meet certain population and growth rate criteria to adopt planning policies and comprehensive plans. WDFW makes recommendations for comprehensive plan contents related to fish and wildlife habitat and critical area regulations, but local jurisdictions develop the final plans and regulations. The result is inconsistencies in regulations among jurisdictions. Unless the local laws conflict with state law, WSDOT must be consistent with local regulations. Local planning departments should be contacted to determine requirements that could affect a project. See **Section 451.02** for details on the GMA.

436.03 Policy Guidance

(1) Transportation Commission Policy

The Transportation Commission's Policy Catalog contains a specific policy on fish and wildlife protection. Policy 6.3.3 states that: "Efforts will be made to mitigate the potential adverse effects that transportation activities can have on fish and wildlife populations." WSDOT intends to "protect, restore, and enhance, where feasible, fish and wildlife habitat and populations within transportation corridors." Action strategies are to:

- Conduct a study to inventory transportation barriers to fish passage; establish criteria for identifying which barriers pose the most significant environmental harm; prioritize the removal of identified transportation barriers; and seek program funding for fish passage barrier removal.
- Identify transportation corridors with significant wildlife losses due to "road kill" or habitat impacts and develop strategies for reducing wildlife losses within these corridors.
- Improve interagency communications, consultations and agreements on habitat protection issues.
- Minimize impacts to natural habitats in design, construction, and maintenance activities.

(2) Washington State Habitat Connectivity Policy – Executive Order

The construction and operation of a system of roads can have significant ecological effects on many wildlife species. Road systems often create barriers that hinder animal movement within their range. Habitats must be accessible, continuous, of sufficient size to sustain wildlife populations. Maintaining access to quality habitat is essential for the long term conservation of many species.

WSDOT is currently developing a policy that will help minimize the effects of transportation projects on wildlife habitat connectivity.

This policy will improve connectivity by rectifying existing problems and incorporating guidance into transportation planning, project development, and operation of the transportation system. This policy is expected to be signed into effect as an Executive Order by summer 2005.

436.04 Interagency Agreements

(1) MOA between WDFW and WSDOT — Construction of Projects in State Waters

The June 2002 Memorandum of Agreement (MOA) between WSDOT and WDFW addresses construction work in state waters. The MOA is designed to provide a mutual understanding between the agencies for the application and acquisition of Hydraulic Project Approvals, and establishes procedures to comply with WAC 220-110 (Hydraulic Code Rules). The MOA replaces the 1996 MOA concerning work in watercourses and the 1990 MOU between WSDOT and WDFW.

Implementation of the MOA is intended to facilitate cooperation and dialogue between the signatory agencies.

The MOA also defines what constitutes an emergency, how the emergent situation must be declared, and how to obtain verbal notice and approval from WDFW to do work during emergencies. The MOA is online at:

http://www.wsdot.wa.gov/environment/Programmatics/docs/MOA_Final.pdf

MOU between Washington State Departments of Fisheries, Wildlife, and Transportation, Concerning Construction of Projects in State Waters (RCW 77.55.100 and WAC 220-110) June 2002.

The Legislature has tasked WDFW and WSDOT with developing a series of programmatic General Hydraulic Project Approvals (GHPAs) for common maintenance and construction activities. An informal document agreed to on June 25, 2004 describes and clarifies issues that arise during permit negotiations and on-the-ground implementation. See **Section 540.15** for current programmatic GHPAs. The process agreement is online via WSDOT/Environmental/Programmatic Permits:

http://www.wsdot.wa.gov/environment/Programmatics/default.htm

Or by direct link:

http://www.wsdot.wa.gov/environment/Programmatics/docs/GHPADevelopmentProcess.pdf

(2) Alternative Mitigation Policy Guidance Interagency Implementation Agreement

The purpose of this February 2000 agreement between WDFW, Ecology, and WSDOT is to describe consensus on mitigation policy among the agencies responsible for aquatic resource mitigation. See **Section 437.04** for details.

(3) Other Interagency Agreements

For other agreements related to fish and wildlife, see **Section 431.04** (water resources) and **Section 437.04** (wetlands). See **Appendix E** for a complete index to interagency agreements referenced in the EPM and a summary of provisions related to each phase of the WSDOT Transportation Decision-making Process.

436.05 Technical Guidance

(1) Discipline Reports

WSDOT' is currently developing a Discipline Report Checklist for Fish, Wildlife, and Vegetation Discipline Reports. Upon completion, it will be added as an Exhibit herein. WSDOT is also developing a generic Scope of Work for consultant contracts regarding the preparation of fish and wildlife discipline reports and Biological Assessments. Both of these technical guidance documents will be added to future editions of the EPM.

Components of the Biology/Wetland Discipline Report address fish, wildlife, and habitat. This report is described in **Section 437.05(3)**.

(2) FHWA

FHWA Technical Advisory T 6640.8A (October 1987) gives guidelines for preparing environmental documents, including water body modification and wildlife impacts, and threatened or endangered species. For details, see FHWA's web page:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, and select T6640.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(3) ESA Procedures

All WSDOT projects are required to comply with the ESA. All projects are subject to Section 9 of the ESA (prohibited acts). If the project has a federal nexus such as federal funding or permitting, it is also subject to Section 7 of the ESA. WSDOT has made ESA compliance an agency-wide priority. Coordination between various WSDOT offices will increase the efficiency and effectiveness of the ESA analysis.

WSDOT identifies potential impacts to listed or proposed species associated with a proposed action and then attempts to avoid, minimize, or eliminate these impacts. For some actions, WSDOT conducts preliminary environmental reviews to identify likely impacts early in the project design. This approach allows for design adjustments if impacts to listed or proposed species are identified.

(a) 4(d) Rule

In June 2000, NOAA Fisheries adopted a rule under Section 4(d) of the ESA. This rule prohibits the take of 14 salmon and steelhead

Evolutionarily Significant Units (ESUs) in the Pacific Northwest. Eight of these ESUs are in Washington State. The 4(d) rule was published July 10, 2000 (65FR 42422).

The rule applies to any agency, authority, or private individual subject to U.S. jurisdiction. However, the take prohibition is not applied to threatened species when the take is associated with a NOAA Fisheries-approved program (one of the 13 "limits"). The 13 limits can be considered exceptions to the 4(d) take prohibition. NOAA Fisheries has determined that these programs, activities, and criteria will minimize impacts on threatened steelhead and salmon enough so additional federal protection is not needed. NOTE: If there is a federal action agency, Section 7 consultation is still required.

NOAA Fisheries will periodically monitor these activities to ensure they continue to qualify under the 4(d) limit. Entities that have been granted a take limit for their activities must conduct monitoring to ensure they remain consistent with the approved plan or program. The 13 limits include:

- ESA Permits.
- Ongoing Scientific Research (expired March 7, 2001).
- Fish Rescue and Salvage Actions (limited to agency or official personnel or their designees).
- Fishery Management (limited to fishery management agencies).
- Artificial Propagation (federal or state hatcheries).
- Joint Tribal/State Plans (covering aspects of fishery management).
- Scientific Research Activities (either permitted or conducted by the state).
- Habitat Restoration (if part of a state-certified watershed conservation plan).
- Water Diversion Screening (must comply with NOAA Fisheries' *Juvenile Fish Screening Criteria*).
- Routine Road Maintenance (equivalent or better to Oregon State Department of Transportation program).
- Portland Parks Integrated Pest Management (specific to Portland Parks).
- Municipal, Residential, Commercial, and Industrial Development and Redevelopment.

WSDOT's routine, unscheduled, and emergency/disaster maintenance activities are covered under the Routine Road Maintenance limit because WSDOT cooperated with 29 other agencies to develop a Regional Road Maintenance Program (RRMP) that received NOAA approval on August 15, 2003. The program defines general practices (such as adaptive management, monitoring, and training) and specific practices (such as BMPs) that WSDOT will use to avoid adverse impacts to the aquatic environment.

The WSDOT program is described in the *Regional Road Maintenance Endangered Species Act Program Guidelines*, which can be found at:

http://www.wsdot.wa.gov/

Click on Environmental, then Regional Road Maintenance Endangered Species Act Program Guidelines.

Or by direct link:

http://www.wsdot.wa.gov/maintenance/roadside/esa.htm

(b) Section 7 Compliance

All projects with a federal nexus are subject to Section 7 of the ESA and an analysis is required to ensure compliance with the ESA. WSDOT acts on behalf of FHWA and the Corps for Section 7 interagency coordination. Depending on the level of impacts, preparation of a "no effects" letter and/or a biological assessment (BA) will be required. Projects requiring a BA could be covered under an existing Programmatic Biological Assessment (PBA), and/or they could require the completion of an individual BA.

Depending on the level of impact identified in the above documentation, informal or formal consultation with the Service (NOAA Fisheries/USFWS) may be required. Guidance on the consultation process for WSDOT projects is being developed by WSDOT, FHWA, NOAA Fisheries, and USFS.

For projects with a federal nexus, the project biologist – either a WSDOT biologist or a consulting biologist – conducts a preliminary evaluation to determine the level of project impacts and the appropriate documentation. If the project is not covered by an existing PBA, the biologist first prepares a project-specific species list. Typically, this list is determined by either obtaining the list from USFWS Western Washington Office's web site (for western Washington counties) or providing a written request to the USFWS Spokane Field Office (for eastern Washington counties), reviewing the NOAA Fisheries species list and reviewing the Priority Habitats and Species (PHS) and Natural Heritage Program (NHP) databases. USFWS Species lists for the western Washington Counties are now available online at the USFWS web site:

http://westernwashington.fws.gov/se/mainpage.htm

WSDOT may also prepare its own USFWS species list by reviewing PHS and NHP data and by using local knowledge.

WSDOT regional offices and Washington State Ferries (WSF) can receive copies of the NOAA Fisheries list from the ESO. A NOAA Fisheries list can also be created from information provided at the NOAA Fisheries Northwest Region web site:

http://www.nwr.noaa.gov/

Click on Summary of Salmon & Steelhead Listings (under ESA Information).

Or by direct link:

http://www.nwr.noaa.gov/1salmon/salmesa/pubs/1pgr.pdf

This project species list identifies the federally listed, proposed, and candidate species, and designated and proposed critical habitat potentially present in the project vicinity. The USFWS list could include fish, wildlife, and plant species. The NOAA Fisheries list could include fish and marine mammal species. The project biologist needs to contact local experts (federal, state, and tribal biologists) for additional species occurrence information.

The project species list is only considered current for 180 days. If the Section 7 documentation is not completed within this 180-day period, an updated list must be obtained.

The project biologist should discuss the proposed activity with the design engineer and obtain project plans and maps. The biologist conducts a site visit to evaluate habitat conditions and identify potential impacts from the project. The project biologist determines if suitable habitat for listed or proposed species is present in the project vicinity.

If suitable habitat is present, the project biologist determines if species surveys are necessary. Often surveys must take place within a specified timing window (such as when a plant is flowering or when a species is most active) or a survey protocol may be in effect. Existing survey timing windows and protocols typically apply to species under USFWS jurisdiction and are determined by the USFWS. If surveys are necessary, the project biologist identifies the survey timing window and/or survey protocol. Because survey timing windows could affect project timelines, the project biologist should discuss survey schedules with the design engineer.

During the site visit, the project biologist should also note any state-listed rare and sensitive plants and/or special habitats and take photos of the project area. Agency and/or tribal biologists should be consulted to further evaluate the potential for species occurrence. Following this preliminary evaluation, the project biologist determines what level of documentation is appropriate. After species habitat and occurrence is determined, the project biologist determines whether or not timing restrictions will be necessary.

(1) No Effect Letters

If, during the preliminary evaluation, the project biologist determines there will be no impact to federally listed species (all species under NOAA Fisheries and/or USFWS jurisdiction) the biologist writes a “no effects” letter to FHWA. For example, if the project is determined to have no effect on all species under NOAA Fisheries jurisdiction but may impact one or more species under USFWS jurisdiction, a "no effects" letter would be written only for NOAA Fisheries species. Preparation of a BA would be necessary for the USFWS species unless the project is covered under an

existing PBA. WSDOT's No Effect Letter Checklist (**Exhibit 436–3**) details the information to be included.

(2) Programmatic Biological Assessments

The purpose of PBA development is to streamline the Section 7 consultation process. PBAs are designed to receive advance concurrence from the Services (USFWS and NOAA Fisheries) on certain road maintenance, preservation, and improvement programs that are likely to be implemented in the future. They cover only those projects which can meet the effect determinations, project conditions, and conservation measures described in the PBA. USFWS and NOAA Fisheries species are addressed in separate PBAs.

Currently three PBAs either are in production or have been completed. Two PBAs address species under USFWS jurisdiction: the Eastern Washington PBA (approved and in use), and the Western Washington PBA (under review). WSDOT's statewide NOAA Fisheries Aquatic PBA has been removed from use as of January 16, 2006. WSF's aquatic PBA is being reviewed internally.

After completing the preliminary evaluation, the project biologist should determine if a PBA is in place in the region where the project is located. Then, the biologist should determine if the project meets the conditions of the PBA for the species covered under the PBA. If the project can be addressed under a PBA, the project biologist ensures that the potential effects do not exceed anticipated levels and assigns the appropriate conservation measures which are to be included as part of the project. The project-level evaluation is documented using WSDOT's PBA determination form. Photos and a vicinity map are attached to the determination form and it is sent to the Service. Individual project consultation with the Service is not necessary. After completion of the first ten projects covered under each PBA, WSDOT plans to meet with the Services to discuss the projects and the PBA process. Thereafter the meeting is held annually.

If any listed or proposed species or critical habitat not covered under the PBA could be impacted by the project, an individual BA may be required. The Service should be consulted to see if an individual BA will be necessary. For controversial or high profile projects, the project biologist may choose to complete an individual BA even if the project is covered under the PBA. Projects which occur on federal lands may also require an individual BA.

(3) Individual Biological Assessments

An individual BA must be prepared if the proposed activity has a federal nexus, could impact a listed or proposed species or its

critical habitat, and is not covered in part or entirely under an existing PBA. Occasionally several similar projects (such as bridge scour repair projects) are "batched" into one BA to streamline the review process.

A BA is an evaluation of the potential impacts of a specific project on federally listed threatened, endangered, and proposed species and designated and proposed critical habitat. A Biological Evaluation (BE) is a similar document, usually required when addressing sensitive species on Federal lands (see **Section 436.05(5)**). However, the U.S. Army Corps of Engineers uses the term BE to describe a BA submitted for informal consultation. The basic purpose is to evaluate potential effects and determine the need for consultation. WSDOT's BA Checklist (**Exhibit 436-3**) details the information to be included.

For each listed species evaluated, the BA must arrive at one of three conclusions:

- The action will have "no effect" on the species;
- The action "may affect, not likely adversely affect" the species; or
- The action "may affect, likely adversely affect the species.

The BA must also address the effects on any proposed species or proposed critical habitats in the project action area. For proposed species, the BA must determine whether or not the action will "jeopardize the continued existence" of the species. For proposed critical habitat, the BA must determine whether or not the action will "destroy or adversely modify" proposed critical habitats. If a "jeopardy" or "will destroy or adversely modify" determination is made, the project can not go forward as proposed. It is unlikely that a WSDOT project would ever reach this level. A conditional effect determination must be made in the BA for each proposed species or critical habitat as well.

The BA will be submitted to the appropriate Service (USFWS or NOAA Fisheries) depending on the species addressed. A transmittal letter written on behalf of the federal nexus agency is included with every BA. The cover letter should include a brief project description and a determinations summary. If during the evaluation, the project biologist determines that formal consultation is necessary, the consultation must be requested by the federal action agency.

If the project BA includes "may affect, not likely to adversely affect" determinations but no "may affect, likely to adversely affect" determinations, informal consultation is required. For informal consultation, the NOAA Fisheries/USFWS reviews the BA and either concur or not concur with the determinations. If the agency concurs in writing, then no further consultation is needed. The agency may request additional information before giving concurrence and the project biologist should respond to such requests.

If the project BA includes any "may affect, likely to adversely affect" determinations or if during the informal consultation process NOAA Fisheries/USFWS does not concur with a determination and determines that there is a "may affect, likely to adversely affect" situation, then formal consultation is required. If the project biologist determines that formal consultation is necessary, the consultation must be requested in the cover letter transmitted through FHWA. Formal consultation is then initiated through a written request by the federal nexus agency. During the formal consultation, NOAA Fisheries/USFWS may recommend modifications to eliminate or reduce adverse effects. If effects can be reduced to an insignificant or discountable level, then consultation can proceed informally. Formal consultation ends with NOAA Fisheries/USFWS preparing a biological opinion (BO). This document may include:

- Reasonable and Prudent Alternatives (RPAs). Actions recommended to avoid jeopardy/adverse modification.
- Incidental Take Statement. Specifies the amount/extent of takings authorized, requires RPAs, and sets terms and conditions.
- Re-initiation Clause. Included in case there are changes or new information.

The BO is an in-depth document that identifies whether or not the action "is likely to jeopardize the continued existence of a listed species or adversely modify critical habitat." If the action is not likely to jeopardize the continued existence of a listed species or adversely modify critical habitat, the project may proceed, provided it follows the terms and conditions outlined in the BO. The formal consultation process must be completed within 135 days, although extensions are possible.

(4) Conference

Conferencing occurs when an action may affect a proposed species or critical habitat. Conferencing can occur at the same time as consultation, or separately depending on the status of the project and timing of proposed listing. If a species or critical habitat is proposed prior to the completion of the action, but after consultation has occurred, a request for conference should occur. See Regional or Headquarters biology staff on how to proceed if conference is necessary.

(5) ESA Consultation Tracking Sheet

The WSDOT Environmental Services Office (ESO) manages the consultation status of WSDOT projects throughout the State. The purpose of the Tracking Sheet is to estimate workload for both WSDOT and the Services in the consultation process, and also to identify which projects are not meeting deadlines. The Tracking Sheet is updated by ESO on a monthly basis, and is usually distributed in the first week of every month.

(c) Section 9 Compliance

Section 9 of the ESA prohibits the "take" of listed species. To ensure Section 9 compliance, projects with no federal nexus must avoid the take of threatened and endangered species. The take of threatened species may be allowed under certain circumstances if a 4d rule applies to the situation.

(d) References on ESA Compliance

The references described below may be useful in understanding ESA requirements and preparing biological assessments:

WSDOT ESA Handbook – *Endangered Species and Transportation Handbook - An Introduction to Understanding the ESA in Relation to Transportation Projects*, WSDOT Environmental Services Office, February 2001 as amended. This document provides an overview of the ESA, agency coordination, impact analysis, and the recent salmonid listings. It contains several flowcharts and appendices including recent updates to WSDOT's *Local Agency Guidelines* (LAG) manual (M 36-63) and the BA Review Checklist.

WSDOT Environmental Services Office Homepage – This web site contains WSDOT policy guidance specific to the ESA, legislative initiatives, regulatory compliance, and information on water quality, wetlands, and cultural resources. It includes the ESA Stormwater Effects Guidance and the 2004 *Highway Runoff Manual* (M31-16) and links to WSDOT's Permits and Documentation Coordination Program, with reference to environmental regulations, procedures, and policies.

http://www.wsdot.wa.gov/

Click on Environmental.

Or by direct link:

http://www.wsdot.wa.gov/environment/

Stormwater Effects on Listed Species – WSDOT's Instructional Letter (#IL 4020.02), *Stormwater Effects Determinations*, communicates the interim agreements reached with NOAA Fisheries, USFWS, and WSDOT regarding stormwater effects on fish species listed under the ESA. It is incorporated into WSDOT's *Highway Runoff Manual* (M31-16).

Highways and Local Programs (HLP) Environmental Web Site – This web site contains information on various environmental issues related to HLP activities. A biological assessment tracking sheet which reports the status in the concurrence process of BAs for various HLP projects can be found here. It also provides links to threatened and endangered species web resources and the ESO homepage.

http://www.wsdot.wa.gov/

Click on Search, then Site Index, then H, then Highways and Local Programs, then Environment.

Or by direct link:

http://www.wsdot.wa.gov/TA/Operations/Environmental/EnviroUpdates.html

FHWA Guidance – The *FHWA Guidelines for the Fulfillment of Interagency Cooperation Under Section 7 of the Endangered Species Act* (January 1988), describes Section 7 requirements and their relation to the federal highways program. It includes the FHWA Endangered Species Flowchart, which displays the ESA Section 7 consultation process as it applies to the Federal Highways Program. See **Exhibit 436-4.**

An earlier version of these guidelines is accessible in pdf format on FHWA's *Environmental Guidebook* along with the Federal Interagency Memorandum of Understanding (MOU) for Implementation of the ESA (November 8, 1994) and other documents on endangered species. Online at FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Endangered Species.

Or by direct link:

http://environment.fhwa.dot.gov/guidebook/chapters/V1ch4.htm

USFWS Endangered Species Homepage – This web site contains various useful documents such as the *ESA Section 7 Consultation Handbook* and Recovery plans.

http://www.fws.gov/

Click on Endangered.

Or by direct link to:

http://endangered.fws.gov/

NOAA Fisheries Homepage – Refer to this site for NOAA Fisheries species list requests. Other information on threatened and endangered species under NOAA Fisheries jurisdiction can be found here.

http://www.nwr.noaa.gov/

(4) Essential Fish Habitat (EFH) Consultation

For WSDOT projects with a federal nexus that may have an adverse effect on EFH, consultation is required. To streamline the process, EFH consultation can occur through the NEPA, EA, ESA, or other federal process agreed upon by NOAA Fisheries and the federal action agency.

To achieve a streamlined approach, WSDOT is currently combining EFH consultations on FHWA-funded projects with ESA Section 7 consultation. Since the biological assessment contains a detailed analysis of project impacts to critical habitat and the environmental baseline, it should already address most requirements of the EFH impact analysis. The EFH section in the BA therefore is not expected to exceed one page in length. The EFH analysis must include:

- A brief introductory paragraph describing why addressing EFH is required.

- A definition of the EFH designation for the fisheries potentially affected by the project.
- An identification of the fish species likely to occur in the project area and a brief description of their use of the project action area (significant prey species like Pacific sand lance should also be considered).
- A brief statement of potential impacts to EFH.
- A determination of effect for EFH (either "no adverse effect" or "adverse effect").

If the determination of effect is "adverse effect", NOAA Fisheries must provide EFH conservation recommendations to the federal agency that submitted the environmental documentation. The federal action agency must then provide a detailed written response within 30 days after receiving them (or at least 10 days prior to final approval of the action, if a decision by the federal agency is required in less than 30 days. The written response must include a description of avoidance measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. If the response is inconsistent with the recommendations made by NOAA Fisheries, adequate justification for not following the recommendations by NOAA Fisheries must be provided. If the federal action agency determines that an action or proposed action will not affect EFH, no consultation is required.

For WSDOT projects with no federal nexus, EFH consultation is voluntary. In situations where non-federal actions occur in areas under a NOAA Fisheries approved Conservation Plan, NOAA Fisheries participation in, and approval of the Plan would be combined with the EFH consultation and would constitute NOAA Fisheries requirements of the Magnuson-Stevens Act for providing advisory conservation recommendations to state agencies. Included in this scenario would be coordination with Section 4(d) rulemaking, Section 4(f) recovery planning, and Section 10 permitting under the ESA.

(5) Projects on Federal Forest Land or Resource Areas—Biological Evaluations

WSDOT projects involving any ground-disturbing activities on federal forest land or resource areas covered by the National Forest Plan must consider potential impacts to the northern spotted owl and other "survey and manage" species within the range of the northern spotted owl. These are species associated with old-growth forests that are afforded special management consideration under the Northwest Forest Plan.

The agency responsible for the affected forest (USFS) or resource area (BLM) should be contacted to obtain a species of concern list. Before any ground disturbing activity can occur, surveys must be performed for each managed species that may be present in the project area. Surveys may take up to a year to complete.

(a) Biological Evaluation Requirements

If it is suspected that an action or proposed action may affect a sensitive species, a biological evaluation (BE) must be written in addition to the NEPA documentation and BA. The BA and BE can be integrated into one document which the USFS or BLM can submit to NOAA Fisheries and USFWS for ESA Section 7 compliance. The main objectives of the BE

are to reduce negative impacts and increase mitigation opportunities for sensitive species, to ensure that USFS/BLM actions do not decrease the viability of native or desired non-native plant or animal species, and to ensure that actions will not lead to the federal listing of species.

(b) Contents of a Biological Evaluation

A BE must include the following:

- An identification of all USFS and BLM sensitive species and federally listed and proposed species and their habitat potentially affected by the proposed activity.
- An identification and description of habitat within the area needed to meet USFS/BLM objectives for sensitive species.
- An analysis of the direct, indirect, and cumulative effects of the proposed action (including mitigation) on species or habitat essential to meet USFS/BLM objectives.
- A determination for each sensitive species of either "no impact"; "beneficial impact"; "may impact individuals, but not likely to cause a trend toward federal listing or loss of viability"; or "likely to result in a trend toward federal listing or loss of viability". Discussion of the process and rationale for the determination, including documentation of any contacts with other agencies or data sources whose information was utilized in the impact determination.
- Recommendations for reducing negative impacts and beneficial mitigation measures.

(c) References on Biological Evaluations

USFS Manual – This manual, with further guidance on writing BEs, is online at:

http://www.fs.fed.us

Click on Publications then Forest Service Manual and Handbook.

Or by direct link:

http://www.fs.fed.us/im/directives/

BLM Homepage –contains information on the Northwest Forest Plan, the National Forest Management Act, and species of concern:

http://www.or.blm.gov/

FHWA Fish and Wildlife Coordination Flow-chart – This flowchart (December 1998) provides guidelines for compliance with the Fish and Wildlife Coordination Act (see **Exhibit 436-1**).

(6) State Priority Habitats and Species (PHS)

The PHS program is managed by the WDFW. It designates species and habitat considered to be priorities for conservation and management. State priority habitat is a habitat type with unique or significant value to many species. State priority species require protective measures for their perpetuation due to their population status, sensitivity to habitat alteration, and/or recreational,

commercial, or tribal importance. Priority species can be state-listed as candidate, or sensitive species; species of tribal, recreational, or commercial importance; or species vulnerable to significant population declines because of aggregation habits (vulnerable aggregates). Species can be considered priority species only in certain locations, such as a breeding area, that are called priority areas.

The PHS program is designed to provide information to local governments, state and federal agencies, private landowners, consultants, and tribal biologists for land use planning purposes. PHS data is used by local jurisdictions to help meet the requirements of the Growth Management Act. Many local jurisdictions have a fish and wildlife ordinance in place to protect these species and habitats. PHS data is part of WSDOT's BA review process and is also considered in some jurisdictions' comprehensive plans. Impacts to PHS species and habitats should be evaluated and local WDFW biologists should be consulted by WSDOT during the project development phase.

WDFW also has maps showing shellfish, forage fish, and spawning habitat, which can be useful for WSF projects and other WSDOT projects which interface with marine environments.

Information on the PHS program can be found on the WDFW homepage:

http://wdfw.wa.gov

Click on Habitat, then Priority Habitats and Species.

Or by direct link:

http://wdfw.wa.gov/hab/phspage.htm

(7) *Washington Natural Heritage Program*

The Washington Natural Heritage Program (WNHP) is a division of the Department of Natural Resources. The WNHP collects data about existing native ecosystems and rare plant species in Washington State. It develops and recommends strategies for protecting native ecosystems and plant species most threatened in the state. Natural heritage data is part of WSDOT's BA review process. Impacts to natural heritage habitats and species should be evaluated during the project development phase. Information on the WNHP can be found at the WDNR's home page:

http://www.dnr.wa.gov/

Click on Programs and Topics, then Natural Heritage Program.

Or by direct link:

http://www.dnr.wa.gov/nhp/index.html

(8) *Mitigation*

WSDOT practice is to minimize impacts to wildlife, fish, sensitive plants, and their habitat. Unavoidable impacts may require mitigation, which is planned during project design. During the mitigation design, coordination between offices is necessary. The designer should work closely with the regional environmental office. Mitigation can involve:

- Designing vertical and horizontal road alignment shifts and modifications to avoid sensitive habitats.
- Installing wildlife overpasses.
- Replacing culverts that impede fish passage.
- Including fish baffles in culverts.
- Reducing clearing limits to save significant trees and other native habitats such as grasslands and prairies.
- Installing wildlife reflectors or other measures to reduce vehicle/animal collisions.
- Habitat improvements including native plantings and placing large woody debris in streams.
- Providing wildlife fencing where accident statistics indicate the need.
- Evaluating the placement of concrete barriers to assess impacts to wildlife and provide for public safety. (See **Exhibit 436-5**).

Long-term maintenance needs should be considered when designing sustainable mitigation systems.

(9) Other Useful Guidance

(a) Salmon Recovery Strategy

Salmon Habitat Protection and Restoration Standards and Guidelines, May 1999 (Draft Five-Year Work Plan – WDFW, Ecology, and WSDOT). This work plan is part of Washington's salmon recovery strategy (Governor's Salmon Recovery Office, 1999). It addresses the need for permit streamlining, improved comprehensive stream corridor management, and policy development in response to the ESA listings of salmonids.

Statewide Strategy to Recover Salmon, September 1999. A long-term guide developed by the Washington State Joint Natural Resource Cabinet to identify the actions needed to recover salmon in Washington State. This and other salmon-related documents can be found at:

http://www.governor.wa.gov/

Click on Enhancing Natural Resources, then Related Links, then Salmon Recovery, and finally Documents and Publications. Both a summary and full version are on the web site.

Or by direct link:

http://www.governor.wa.gov/gsro/strategy/longversion.htm

(b) Concrete Barrier Placement Guidance

The placement of concrete barriers in locations where wildlife frequently cross the highway can influence wildlife mortality and traffic safety. Concrete barriers of varying heights can be difficult for wildlife to cross. When wildlife encounter physical barriers, they often travel parallel to the barrier, remaining on the highway longer and increasing the risk of

wildlife/vehicle collisions or vehicle/vehicle collisions as motorists attempt to avoid them.

To address public safety and wildlife concerns, the ESO and Design Offices have developed guidance to determine if concrete barrier placement requires an evaluation of the effect on wildlife by environmental staff. This guidance has been incorporated into WSDOT's Design Manual (see **Exhibit 436-5**). Coordination between the Design Office and the ESO must occur early in the Project development process to allow adequate time for discussion of options.

(c) WSDOT Resources

WSDOT GIS Workbench – Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available databases include: Water Resource Inventory Areas (WRIAs), critical habitats for marbled murrelet and northern spotted owl, spotted owl special emphasis areas, Evolutionarily Significant Units (ESUs), PHS data, habitat conservation projects, fish passage barriers, outdoor recreation projects, wildlife and recreation projects, the Lower Columbia River Conservation Initiative Boundary, and heritage plants. For information on how to access the GIS Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:

http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

Automated Training System – This program provides standard recommended courses for biologists including an ESA and Transportation course. A special ESA class is offered for maintenance employees. Additional courses may be offered in the future including an advanced course on ESA and Transportation.

Roadside Manual – This WSDOT manual (M25-30) includes definitions of federally designated lands (Chapter 410) and discusses roadside vegetation design and management (Chapter 800).

Local Agency Guidelines – This manual (M36-63, June 1998) provides local agencies with statewide policies and standards to follow when using FHWA funds for transportation projects. Chapter 24 addresses environmental processes and contains an Environmental Classification Summary checklist (ECS), as well as NEPA guidelines and flowcharts. Recent updates (March 15, 1999) to this chapter are included on the

electronic version; they are also included in WSDOT's *An Introduction to Understanding the ESA in Relation to Transportation Projects* (WSDOT, 2001 as amended).

http://www.wsdot.wa.gov/

Click on Search, then Site Index, then H, then Highways and Local Programs, then LAG.

Or by direct link:

http://www.wsdot.wa.gov/TA/Operations/LAG/LAGHP.HTM

Roadside Classification Plan 1996 – The partial intent of this document is to provide guidance for the protection and restoration of Washington State's natural environment and heritage resources within the state highway ROW.

(d) WDFW Resources

Fish Passage – *WDFW Fish Passage Design at Road Culverts*, May 2003. A design manual for fish passage at road crossings, online at:

http://wdfw.wa.gov

Click on Habitat, then Upstream Fish Passage at Dams and Culverts (under Technical Assistance for Habitat Protection), then Fish Passage Design at Road Culverts.

Or by direct link:

http://wdfw.wa.gov/hab/engineer/cm/

Streambank Protection – *WDFW Integrated Streambank Protection Guidelines*, April 2003. This workbook provides guidance for responses to eroding stream and river banks. It presents an ecological approach to the management of stream banks and associated uplands.

Various Species Status Reports and Management Plans – These documents typically contain guidelines and recommendations for the conservation and management of state listed and/or priority species.

(e) FHWA Environmental Guidebook

In addition to its ESA information, FHWA's online *Environmental Guidebook* contains documents on wildlife, habitat, and ecosystems. Topics include biodiversity, ecosystem management, and ecological mitigation. See also Watershed Management and Endangered Species. Available on FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Index, then Wildlife, Habitat and Ecosystems, Watershed Management or Endangered Species.

Or by direct link:

http://environment.fhwa.dot.gov/guidebook/index.htm

436.06 Permits and Approvals

Permits relating to Wildlife, Fish, and Vegetation are addressed in the following sections:

Federal

- Section 520.09 – Section 7 Consultation

Tribal

- Section 530.02 – Tribal treaty rights (usual and accustomed hunting and fishing grounds)

State

- Section 540.15 – Hydraulic Project Approval (including streamlined process for Fish Habitat Enhancement Projects)
- Section 540.16 – Aquatic Lands Use Authorization
- Section 540.25 – Other State Approvals (Beaver Trapping on WSDOT Property)

436.07 Non-Road Project Requirements

Ferry, rail, airport, or non-motorized transport systems are generally subject to the same policies, procedures, and permits that apply to road systems. For ferry projects, WSF must follow strict guidelines in order to work in near-shore environments. These guidelines include avoidance of eelgrass and spawning habitat, restrictions on construction materials, and specific BMPs. Removal of creosote associated with docks, pilings, and piers from the aquatic environment is a high priority for the resource agencies.

Public-use airports must address specific wildlife hazards on or near airports. These issues are addressed in the Federal Aviation Administration (FAA) Publication, *Hazardous Wildlife Attractants On or Near Airports* (No. 150/5200-33A, July 27, 2004). Online at:

http://www.faa.gov/

Search for 150/5200-33A

Or by direct link:

http://www.faa.gov/arp/publications/acs/5200-33A.pdf

436.08 Exhibits

Exhibit 436-1 – Fish and Wildlife Coordination Flowchart - Federal Highway Program.

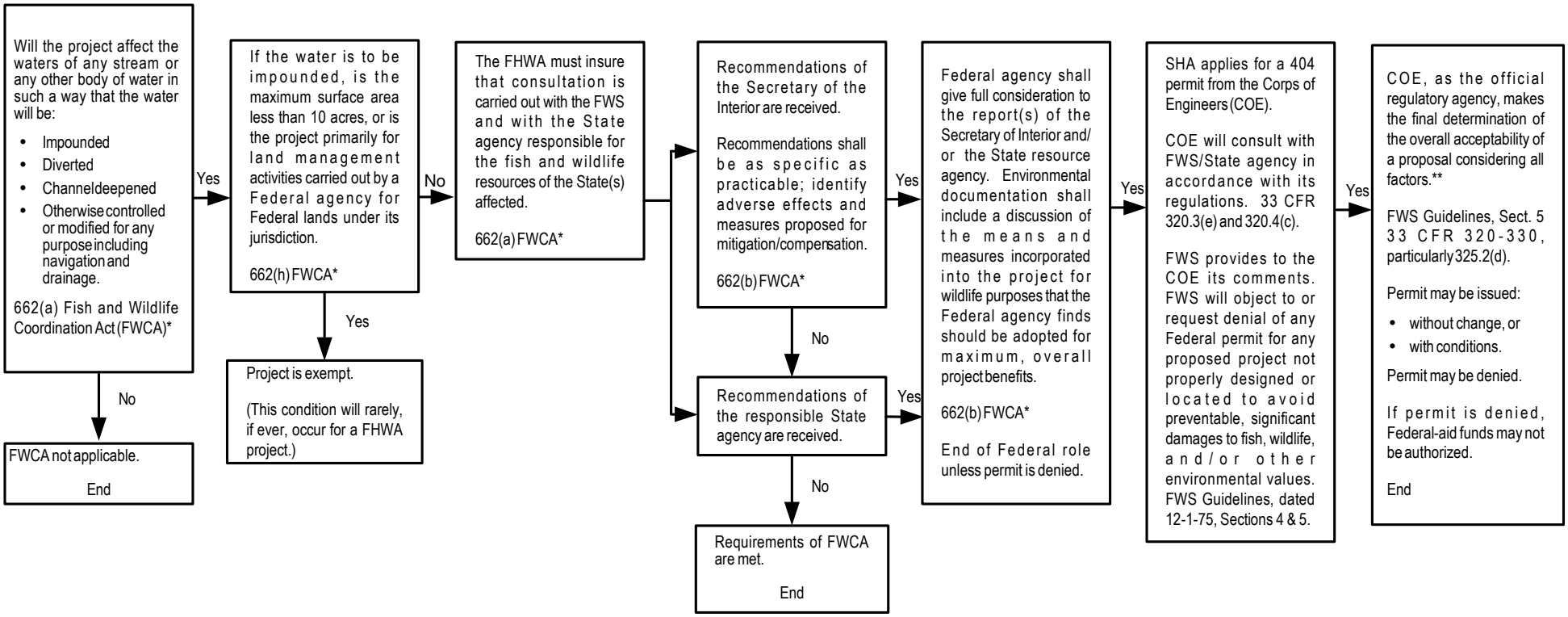
Exhibit 436-2 – No Effects Letter Checklist.

Exhibit 436-3 – Biological Assessment Checklist.

Exhibit 436-4 – Guidelines for the Fulfillment of Interagency Cooperation Under Section 7 of the Endangered Species Act.

Exhibit 436-5 – Guidance on Placement of Concrete Barriers.

Fish and Wildlife Coordination Flowchart
Federal Highway Program



Source: USFWS, December 17, 1998.

* Section references to 16 USC 661-667(d). If the proposed project affects water resources that are covered by the FWCA, it should be recognized that a 404 permit will also be required. If the recommendations of the FWS/State agency can be accommodated and a mitigation commitment made in the environmental document, then the re-examination of FWCA issues at the 404 permit statge should be routine unless project or policy change has occurred. If resolution cannot be obtained during the environmental process, then the objection of the FWS/State agency can be expected at permit time.

** The EPA may review the permit and if necessary, veto it in accordance with Section 404(c) of the Clean Water Act.

"No Effect" Letter Checklist

Project Name: _____
Region, City or County:_____
Biologist Name, Affiliation and Phone Number: _____
Contact Name, Agency/Region, Phone Number: _____

General Comments:

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Typically, the "no effect" letter (NEL) should be two to three pages in length, depending on the complexity of the proposed action. The purpose of the NEL is to document and support the "no effect" determination(s). The focus of a NEL should be a brief but complete project description, species habitat and occurrence information, analysis of project impacts, and justification for the "no effect" determination. The NEL should end with this language, "*It is our understanding that this satisfies our responsibilities under Section 7 (c) of the Endangered Species Act at this time, and we are sending you this copy of our assessment for your files. We will continue to remain aware of any change in status of these species and will be prepared to re-evaluate potential project impacts if necessary*."

Key:
SUF = Sufficient information contained in the NEL;
INC = Incomplete or insufficient information to justify "no effect" determination;
MIS = Missing information that is key to addressing potential impacts and justifying the "no effect" determination.
N/A = Not Applicable, the project does not require this information to justify the "no effect" determination, or does not apply.

Remember, the level of detail should be commensurate with the effects of the action.

No Effect Letters Should Include The Following Information:

SUF	INC	MIS	N/A	
☐	☐	☐	☐	A. Describe the overall **purpose of the project** and a brief summary of project objectives. Estimate the duration and the dates that the project will occur.
☐	☐	☐	☐	B. Cite species listings provided by NMFS and/or USFWS. Append a copy of the listing to the report. Species listings should be updated every 6 months (listings must not be more than 6 months old) or if there are status changes.
☐	☐	☐	☐	C. Provide a legal description (Section, Township, Range) and vicinity map that clearly shows the project in relation to nearby waterbodies, sensitive habitats, etc.
☐	☐	☐	☐	D. Photographs, especially color copies, are useful to orient the reviewer to the project area. A combination of aerial or orthophotos, and snapshots are ideal.
☐	☐	☐	☐	E. List all proposed project related construction activities and types of equipment. Describe expected noise and disturbance issues. Estimate timing (daylight/nighttime) of project activities. Include all phases or stages of the project. Include any secondary project features such as mitigation, staging areas, detours, waste and stockpile sites, etc.
☐	☐	☐	☐	F. Date of field review(s) of project, personnel involved, and results of visit(s).
☐	☐	☐	☐	G. Describe the project setting in terms of physiographic region, general topography, dominant habitat and vegetation type(s), aquatic resources, land use patterns and existing disturbance levels from human activities, roadways, etc.
☐	☐	☐	☐	H. Describe the potential suitable habitat for the species found on-site or in the project vicinity. Reference WDFW PHS data, State salmonid stock inventories, and consult WDFW/Tribal habitat biologists for species use in the project vicinity.
☐	☐	☐	☐	I. Include a brief discussion of where EFH is found in the project action area, which species or species groups are within the action area it pertains to, and their use of habitat within the action area.

SUF	INC	MIS	N/A	
☐	☐	☐	☐	J. Quantify area of habitat disturbance as it relates to the species being addressed. Examples include: vegetation removal (include species and size [height and dbh]), stream substrate disturbance, proposed earthwork, increase in impervious surface, etc.
☐	☐	☐	☐	K. Discuss why likely impacts to the listed species and their habitat from construction and/or operation of the project will not occur (one paragraph per species).
☐	☐	☐	☐	L. Discuss why likely impacts to the EFH of each species and/or species group for which it is present in the action area from construction and/or operation of the project will not occur.
☐	☐	☐	☐	M. A "no effect" determination must be made for each listed species as well as designated critical habitat (if appropriate). It must provide supporting evidence to justify the "no effect" determination. A "no jeopardy" call and a conditional (upon listing) "no effect" determination should be made for proposed species. A "no impact" call should be made for candidate species and species of concern.
☐	☐	☐	☐	N. A "no effect" determination must be made for the EFH of each species group for which it is present in the action area, unless the impacts vary by species. Then the effect determination would be made at the individual species level.

Note: EFH pertains to both listed and non-listed species.

Comments:

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Revised: April 2005

Biological Assessment Checklist (Version 9a)

Project Name: _____
Region, City or County:_____
Biologist Name, Affiliation and Phone Number: _____
Contact Name, Agency/Region, Phone Number: _____

General Comments: _____
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Key: **SUF = Sufficient information** contained in BA; **INC = Incomplete** or insufficient information to justify effect determination; **MIS = Missing** information that is key to addressing potential impacts and justifying determinations of effect. **N/A = Not Applicable**, the project does not require this information to justify the effect determination, or does not apply. ***Remember, the level of detail should be commensurate with the effects of the action.*** *Required information is not shaded, items that are shaded are highly recommended to support the analysis and justify the effect determination.*

Biological Assessments Should Include the Following Information:

Project Description. Describe in detail the type and scope of action proposed. Use plain language and avoid engineering jargon with no explanation, for example, signalization and channelization. To a fish biologist, channelization means straightening and ditching a stream. To a road engineer, it means turn lanes. The following items should be addressed:

SUF	INC	MIS	N/A	
☐	☐	☐	☐	A. Describe the overall **purpose of the project** and a brief summary of project objectives. This should be a general statement, and not necessarily the NEPA purpose and need statement.
☐	☐	☐	☐	B. List all proposed project related **construction activities** and types of equipment. Include sources of loud noise above ambient levels. Include all phases or stages of the project and include details about any structures altered or built by the proposed actions. Emphasis the ways the project was designed to reduce impacts to listed species such as the use of retaining walls.

SUF	INC	MIS	N/A	
☐	☐	☐	☐	C. **Secondary project features** (i.e. wetland mitigation construction, staging areas, detours, waste and stockpile sites, safety clearing, work trestles and temporary work bridges, and demolition). Include mitigation activities required by regulatory agencies (i.e. WDFW, etc.) that are a part of the proposed actions.
☐	☐	☐	☐	D. Include **simple plan sheets or overview of alignment** showing where work is proposed relative to sensitive areas and/or habitat.
☐	☐	☐	☐	E. Quantify area of **vegetation removal**, include clearing and grubbing, vegetation type, replanting plans. For trees include species and size (height and dbh). Describe both temporary and permanent clearing.
☐	☐	☐	☐	F. Provide a **chronology of when activities will occur**, timing of construction, phasing. Provide hours of operation, specify day or night, time of year (months and year), duration. If details are unavailable, identify a potential work window using the worst case scenario.
☐	☐	☐	☐	G. Describe **proposed grading and filling or other earthwork, include specific BMPs** for erosion, sedimentation, stormwater and spill control. If appropriate, append the TESC Plan, Spill Control Plan, BMP specifications, etc.
☐	☐	☐	☐	H. Explain any expected changes to the **operation of the facility** (i.e., increased traffic, revised use patterns, new maintenance needs, etc.)
☐	☐	☐	☐	I. **Stormwater treatment information**: Stormwater treatment information should not be in its own section but should be included in the project description. It should not be more that a couple of paragraphs long and should address: How much **new impervious surface (NIS)** is the project creating (including sidewalks, parking lots, etc. for which it is determined that stormwater treatment should be included), and how much of the NIS is being treated for stormwater (% or total amount)? What BMPs are proposed to treat NIS for quality & quantity? What is the receiving area/waterbody and overflow channel for each BMP? What is the amount of **existing (pre-project) impervious surface (EIS)** in project area? How much EIS is currently (pre-project) treated for stormwater? What BMP's are being used to treat EIS for quality, quantity and what are the receiving areas/waterbody for each BMP? How much of the untreated EIS is proposed for treatment as part of project? What BMPs are proposed for treatment of the untreated EIS identified

SUF	INC	MIS	N/A	
				above (quality, quantity, receiving area/waterbody)? Is off-site stormwater being treated in WSDOT stormwater facilities under pre-project conditions? If yes, will this treatment continue at the same level under the proposed project? Describe the location of the facilities and outfalls. Include the effects of constructing these facilities in the impact analysis.
☐	☐	☐	☐	J. Describe **proposed in-water work** (below OHWM) and work over waterbodies, and potential for impacts to riparian vegetation. Include conditions and **work windows** as described in the WDFW Hydraulic Project Approval and/or negotiated with USFWS and NMFS. State clearly if the project does not include any in-water or over water work. Include a figure showing locations of waterbodies potentially affected by proposed in-water work.

Project Description Comments:

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_____

Description of the Project Action Area. The following items should be addressed as appropriate:

SUF	INC	MIS	N/A	
☐	☐	☐	☐	A. **Define the Action Area** (area of potential impacts, both **indirect** and direct). The action area is usually larger than the project area or project vicinity (i.e., the river upstream & downstream from a bridge project, waterbodies receiving stormwater, detour routes, wetland or other mitigation sites resulting from project impacts). Include *all* areas, including mitigation areas and other areas located outside of the immediate project area, that may be affected by project activities.
☐	☐	☐	☐	B. Provide a **legal description** (Section, Township, Range) and **vicinity map** that clearly shows the project in relation to nearby waterbodies, sensitive habitats, etc.
☐	☐	☐	☐	C. Provide the location in the Sixth Field HUC.
☐	☐	☐	☐	D. **Photographs**, especially color copies, are useful to orient the reviewer to the project area. A combination of aerial or orthophotos, and snapshots are ideal.
☐	☐	☐	☐	E. Date of **field review**(s) of project, personnel involved, and results of visit(s).

SUF	INC	MIS	N/A	
☐	☐	☐	☐	F. Describe the **environmental baseline (current or pre-project) condition** of the habitat and the project area. The baseline description should address all pertinent habitat parameters for the species. Where appropriate, address aquatic baseline conditions using the matrix of pathways and indicators (MPI) for the appropriate species. Only address the MPI if in water work will occur and include the actual chart in the body of the document. In the document only address those indicators that may be impacted by the project. Additional information on the rest of the indicators may be provided in the appendix. Decide if the indicators will be addressed at the project level or action area level in addition to the watershed level.
☐	☐	☐	☐	G. Describe the **project setting** in terms of physiographic region, general topography, dominant habitat and vegetation type(s), aquatic resources, land use patterns and existing disturbance levels from human activities, roadways, etc.
☐	☐	☐	☐	H. Include information about **past and present activities** in the area that relate to the species or its habitat and/or the proposed action. This could include past consultations and conservation measures, or species management plans.

Description of the Project Action Area Comments:

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Endangered, Threatened and Proposed Species and Designated Habitat Occurrence. The BA should be based on current site-specific information about the species and its life history. Be sure to cite any relevant scientific literature or research findings as referenced. The following items should be addressed:

SUF	INC	MIS	N/A	
☐	☐	☐	☐	A. Cite **species listings** provided by NMFS and/or USFWS. Species listings should be updated every 6 months (listings must not be more than 6 months old) or if there are status changes. USFWS listings for Western Washington may be obtained from their web site: http://westernwashington.fws.gov/se/SE_List/endangered_Species.asp

SUF	INC	MIS	N/A	
☐	☐	☐	☐	B. Identify any **listed, proposed species**, and **designated or proposed critical habitat**, that are **known or have the potential to occur** on site or in the project action area. Cite the Federal Register notice of listing status or proposal for listing. Identify fish by ESU or DPS. Discussion included about individual species should focus primarily on site specific information. Candidate species can be addressed in the appendix.
☐	☐	☐	☐	C. Describe the **species, its habitat requirements and ecology** as it relates to the action area, and relate that to the local populations. A lengthy life history is not required, and can be incorporated by referencing appropriate listing documents. Enough information should be provided to adequately explain the potential impacts.
☐	☐	☐	☐	D. Describe the **potential suitable habitat** and **critical habitat** for the species found on site or in the project action area and how local populations use it. Discuss the **local status** of the species as appropriate. Determine the likely level and type of use of the area by each species.
☐	☐	☐	☐	E. If a No Effect determination is made based on **lack of suitable habitat** for a particular species in the action area, this needs to be adequately justified and documented. Discuss the **habitat features or types that are available** as compared to the habitat features that define suitable habitat for each species.
☐	☐	☐	☐	F. If relevant, describe any efforts to determine the status of the species in the project area, including information on **survey methods, timing and results of surveys** for species or suitable habitat identification. *If suitable habitat is present, species presence should be assumed until adequately proven otherwise*.
☐	☐	☐	☐	G. Include any information received from **biologists with special expertise** on the species or location, such as WDFW, Tribal, USFS or other local, regional and university fish, wildlife and habitat biologists and plant ecologists. Include conversations cited as pers. comm. in the References section, and document what their expertise is in.

Listed and Proposed Species and Habitat Occurrence Comments:

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Analysis of Effects on Listed and Proposed Species and Designated and Proposed Critical Habitat. Provide a thorough analysis of the proposed project on the species and its habitat within the Action Area. The following items should be addressed:

SUF	INC	MIS	N/A	
☐	☐	☐	☐	A. Describe how the **environmental baseline** (current or pre-project condition of the habitat in the action area) will be degraded, maintained or improved (restored). Append the completed NMFS and/or USFWS Checklist for Documenting Environmental Baseline and Effects of Proposed Action(s) on Relevant Indicators. Only address the indicators that will be impacted by the project. Include the matrix of pathways and indicators (MPI) chart in the BA, but place the discussions of the non-impacted indicators in the appendix.
☐	☐	☐	☐	B. **Direct Effects:** Describe and analyze the **effects of the action that would directly affect the species, suitable habitat and food resources**. Include actions that would potentially remove or destroy habitat, displace or otherwise influence the species, either positively (beneficial effects) or negatively (adverse effects).
☐	☐	☐	☐	C. Describe potential for **impacts from disturbance** (i.e., noise above ambient levels, sudden loud noises, increased human activity), **from construction and continuing operation.** Construction impacts would be considered direct effects whereas operation noise impacts could be considered indirect effects (occur later in time).
☐	☐	☐	☐	D. **Indirect Effects:** Describe any potential **indirect impacts** (those that occur later in time) such as impacts to future food resources or habitat, and impacts from increased long-term human access or project-induced growth. **The action area must include the extent of these impacts.**
☐	☐	☐	☐	E. **Interrelated and Interdependent Activities:** Describe and analyze any potential effects from interdependent actions (actions that have no independent utility apart from the primary action) and interrelated actions (actions that are part of the primary action and dependent upon that action for their justification) on the species or habitat that **would not occur "if not for" the proposed action**.
☐	☐	☐	☐	F. **Cumulative Effects:** Identify those **cumulative effects** within the action area (defined as future State or private actions) that are reasonably certain to occur. Cumulative effects are not used to make the effect determination, but must be provided to the Services for their analysis. Please note that this definition differs from that used under NEPA as it does not include future Federal actions. **Cumulative effects analyses are required for formal consultations ("likely to adversely affect") only.**

SUF	INC	MIS	N/A	
☐	☐	☐	☐	G. If species specific **recovery, management, and/or watershed plans** have been established, address the project in terms of compliance and recommendations.
☐	☐	☐	☐	H. For **proposed species**, analyze the potential for the project to jeopardize the continued existence of the species. In addition to a jeopardy call the BA should make a provisional effect determination.
☐	☐	☐	☐	I. Discuss any **potential take** of listed species. This must be unavoidable and quantified if an incidental take permit is being requested.
☐	☐	☐	☐	J. The BA must contain a **distinct statement of the overall effect of the project on each species**. It must also provide supporting evidence to justify the effect determination (for listed species) or jeopardy call (for proposed species). The determination must be consistent throughout and worded correctly.

Analysis of Effects on Listed Species Comments:

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Analysis of Impacts on Candidate Species, Species of Concern and Other Sensitive Wildlife.
Depending upon the scope of the project the BA should address federal candidate and species of concern, as well as state listed species, PHS resources, Tribal resources, and Forest Service Sensitive species. Although the ESA may not apply to these species, if significant impacts could occur, they should be discussed commensurate with the issues. This could also help avoid future listings. This section should be placed in the Appendix. The following items should be addressed:

SUF	INC	MIS	N/A	
☐	☐	☐	☐	A. Indicate the potential suitability of habitat in or near the project. Indicate the known or likely potential level of use of the site or project vicinity by the species.
☐	☐	☐	☐	B. These species can be addressed in guilds (species with similar life histories or habitat requirements), for example all bat species, amphibians, or aquatic species can be lumped together.
☐	☐	☐	☐	C. Describe any potential direct or indirect impacts on the species, (i.e., habitat loss, disturbance, etc.).
☐	☐	☐	☐	D. Species other than federally listed species, such as those mentioned above (State listed, Forest Service, Tribal, PHS, etc.) could be mentioned here as appropriate.
☐	☐	☐	☐	E. Impact assessment for these species should indicate whether the project is likely to significantly impact their populations or important habitat components.

Analysis of Impacts on Candidates and Species of Concern Comments:

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Recommended Conservation Measures. Describe components of the project that may benefit or promote the recovery of listed species and are included as an integral part of the proposed project. These conservation measures serve to minimize or compensate for project effects on the species under review. Recommendations should be discussed with the project engineer to insure that they are feasible for the project. Typically NMFS and USFWS require inclusion of the recommendations in the project as part of the conditions of their concurrence. The following items should be addressed:

SUF	INC	MIS	N/A	
☐	☐	☐	☐	A. Provide **specific recommendations**, as appropriate**, to reduce or eliminate the adverse effects of the proposed activity**. Potential measures include: timing restrictions for all or some of the activities; clearing limitations; avoidance of specific areas; special construction techniques; HPA conditions; replanting with native vegetation; potential of habitat enhancement (i.e., fish passage barrier removal); best management practices, etc. If applicable, append a copy of the HPA, specs. for BMP's, or other documentation to support the implementation of the conservation measure.
☐	☐	☐	☐	B. These should be clearly stated so they can be **easily incorporated into contract plans and implemented**.
☐	☐	☐	☐	C. Include a **description of any proposed monitoring** of the species, its habitat and conservation measure effectiveness.

Recommended Conservation Measures Comments:

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Conclusions and Effect Determinations. Summarize the proposed project and objectives, and restate the listed species that may occur near the project and the expected level of use. State what conclusions regarding potential impacts to the species discussed can be supported from the information presented in the report. The following items should be addressed:

SUF	INC	MIS	N/A	
☐	☐	☐	☐	A. A **determination of effect** must be made for each threatened and endangered species as well as any designated critical habitat*. For each, only one of the following determinations of effect is acceptable: • Beneficial Effect (by definition cannot be a No Effect, must also be one of the May Affect calls); • No Effect (absolutely NO effect whatsoever); • May Affect, Not Likely to Adversely Affect (insignificant - never reaches level where take occurs, or discountable - extremely unlikely to occur); or • May Affect, Likely to Adversely Affect (measurable or significant effects) *In addition to the determination of effect made for designated critical habitat, you must also determine whether the action will **destroy or adversely modify** designated critical habitat. The format of the effect determination should include a list of all the factors that could affect the species followed by list of justifications for why it leads to the identified effect determination.
☐	☐	☐	☐	B. For any **proposed species or proposed critical habitat** discussed, the conclusions should indicate whether the proposed project is likely to **jeopardize** the continued existence of the species (as in the entire species, not individual(s)), or destroy or adversely modify the proposed critical habitat. A **conditional effect determination** is also recommended in the event that the species is listed prior to project completion.
☐	☐	☐	☐	C. For species discussed that are not afforded protection under ESA (i.e**., candidates, species of concern, state listed species**, etc.), the conclusions should indicate whether the project is likely to significantly impact populations, individuals or suitable (occupied or unoccupied) habitat. This analysis should be included with the rest of the candidate species section in the appendix.

Conclusions and Effect Determinations Comments:

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Essential Fish Habitat (EFH). This section should be included in the appendix. EFH means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. EFH assessments must include a brief description of what EFH is, where it is located within the action area, a description of the project actions, an analysis of effects, including cumulative effects, of the proposed action on EFH, and an effects determination for the EFH of each species and/or species group for which habitat is present. When integrated with a biological assessment prepared for Section 7 consultation, elements of the project description, impact analysis, and conservation measures that are included in the ESA portion of the BA may be referenced in the EFH portion to avoid redundancy.

SUF	INC	MIS	N/A	
☐	☐	☐	☐	A. Provide a brief description of what EFH is, why it must be addressed, where it is found in the project action area, which species or species groups are within the action area it pertains to, and their use of habitat within the action area (significant prey species should also be considered). For the Pacific Coast salmon fishery, identify species (coho, Chinook, and/or pink). Otherwise, identify species group (groundfish and/or coastal pelagics).*
				* Note that EFH pertains to both listed and non-listed species. For example, an EFH analysis may still be required when a project does not occur within the ESU of a listed species, but where Chinook, pink, or coho salmon or groundfish occur. Additional guidance for integrating ESA and EFH consultations may be found at: http://www.nwr.noaa.gov/1habcon/habweb/msa.htm
☐	☐	☐	☐	B. Include a brief statement of **potential impacts (including beneficial effects) to EFH**, including a description of individual or cumulative adverse effects of the project on relevant EFH, the managed species or species groups, and associated species such as major prey species, referring as necessary to supporting material in the ESA portion of the BA.
☐	☐	☐	☐	C. Include a description of **conservation measures** that will minimize or eliminate potential impacts to EFH and/or refer to appropriate conservation measures detailed in the ESA portion of the BA.
☐	☐	☐	☐	D. A **determination of effect** must be made for the EFH of each species and/or species group for which it is present. If the effect determination will be different for a species of Pacific salmon, the determination is made for each species in the species group (e.g., chinook, coho and/or pink salmon). Otherwise, the determination of effect is made for the species group (e.g., Pacific salmonids, groundfish and/or coastal pelagics). It should state either **"no adverse effect"** or **"adverse effect"** on EFH).

EFH Additional Comments:

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References and Appendices Refer to all appropriate project documents, particularly if the assessment depends upon information located elsewhere (e.g., in an EIS or EA). You should consider providing the Service with copies of pertinent documents along with the BA. Ideally, the BA will be a complete stand-alone document for ESA purposes. The following items should be addressed:

SUF	INC	MIS	N/A	
☐	☐	☐	☐	A. Provide **citations** for other information referred to in the BA, such as current literature and personal contacts used in the assessment. Include name, affiliation, and date. Use as the most recent references available on each species and topic.
☐	☐	☐	☐	B. Include as appropriate: any photographs; simple project plans; survey methods, protocols and results; and copies of the listing letters from NMFS and USFWS; Hydraulic Project Approval (WDFW); planting plans; Hydraulic Report; NMFS Baseline Checklist; Stormwater guidance, etc.
☐	☐	☐	☐	C. In the final document, **do NOT include** copies of PHS maps or site specific habitat resource maps, or tabular data **if they contain details on sensitive information such as nest site locations or congregation areas.** Information on some listed species should not be included in a public document. This information can accompany the document to aid the reviewer, but should not be incorporated into the document.

References and Appendices Comments:

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Additional Comments:

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Revised: April 2005

Guidelines for the Fulfillment of Interagency Cooperation Under Section 7 of the Endangered Species Act

ENVIRONMENTAL ANALYSIS DIVISION

OFFICE OF ENVIRONMENTAL POLICY

FEDERAL HIGHWAY ADMINISTRATION

January 1988

TABLE OF CONTENTS

I. PURPOSE:

This guidance describes the Section 7 requirements of the Endangered Species Act and its relation to the Federal highway program. On June 3, 1986, the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) issued a joint rule (50 CFR, Part 402) establishing the procedural regulations governing interagency cooperation under Section 7 (Appendix 1). This regulation is for the purpose of ensuring that actions are not taken to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of the critical habitat of such species. The June 3 regulation supersedes the previous final rule issued on January 4, 1978.

II. BACKGROUND:

A. Legislation

The endangered species program is mandated by the Endangered Species Act of 1973 (P.L. 93-205). The Act is composed of 16 sections (Sections 2 – 17). The following paragraphs summarize the major elements of each of these sections.

Section 2 (Findings, Purposes, and Policy) mandates all Federal departments and agencies to conserve endangered species and to utilize their authorities in furthering the purposes of the Endangered Species Act.

Section 3 (Definitions) provides a number of key definitions, such as critical habitat, endangered species, take, and others.

Section 4 (Determination of Endangered Species and Threatened Species) provides the criteria for determining endangered and threatened species. This section also provides guidance on the procedure for listing species and directs the development of recovery plans (see Appendix 2 for current procedures). As of March 31, 1987, 376 species are protected in the U.S. and territories. Hawaii, California, and Florida are accountable for the highest percentage of protected species. Generally, the marine species protected are under the jurisdiction of NMFS, and the remaining species are under FWS jurisdiction.

Section 5 (Land Acquisition) indicates which funding authorities can be used for acquisition.

Section 6 (Cooperation with the States) provides numerous options for the FWS in their relationship with the States, such as:

1. obtaining information;

2. assisting in the development of a State program for protecting species;

3. providing financial assistance; etc.

Section 7 (Interagency Cooperation) is the key section which requires each Federal agency to ensure that its actions do not jeopardize the continued existence of any threatened or endangered species or adversely modify the habitat of such species.

Section 8 (International Cooperation) encourages foreign countries to develop programs to conserve fish and wildlife, including the protection of threatened and endangered species.

Section 9 (Prohibited Acts) provides direction on importation of protected species, species held in captivity or a controlled environment, import and export rules, and designation of ports-of-entry.

Section 10 (Exceptions) provides exemptions to the law; such as the hardship criteria, rules governing Alaska natives, and the exemption of certain antique articles.

Section 11 (Penalties and Enforcement) provides the criteria for civil and criminal penalties, district court jurisdictions, rewards for information, enforcement of the Act, and provisions for citizen suits.

Section 12 (Endangered Plants) provides a report to Congress on species of plants which are now or may become threatened or endangered (report has been provided to Congress).

Section 13 (Conforming Amendments) amends certain laws to be in conformance with the Endangered Species Act.

Section 14 (Repealer) repeals portions of the Endangered Species Conservation Act of 1969.

Section 15 (Authorization of Appropriations) authorizes monies to implement the Act.

Section 16 (Effective Date) indicates the effective date of the Act to be December 28, 1973.

Section 17 (Marine Mammal Protection Act of 1972) emphasizes that unless otherwise indicated, no provisions are to take precedence over these more restrictive, conflicting provisions of the Marine Mammal Protection Act of 1972.

B. Amendments

The Endangered Species Act has been amended eight times, the latest being 1984. These amendments and their effects on the FHWA programs are listed as follows:

1. P.L. 94-325 of June 30, 1976

   No effect.

2. P.L. 94-359 of July 12, 1976

   No effect.

3. P.L. 95-212 of December 19, 1977

   No effect.

4. P.L. 95-632 of November 10, 1978

   a. establishes an Endangered Species committee;

   b. formalizes the process for issuing a biological opinion;

   c. requires the preparation of a biological assessment, in appropriate instances; and

   d. prohibits a Federal agency from making irreversible or irretrievable commitments of resources after the initial consultation

5. P.L. 96-159 of December 28, 1979

   a. modifies Section 7(a)(2) so that actions are not likely to jeopardize the continued existence of any of the endangered or threatened species to destroy or adversely modify the critical habitat of such species;

   b. requires all Federal agencies to confer with the Secretary of the Interior; and

   c. requires Federal agencies to use the best available scientific and commercial data during formal consultation.

6. P.L. 96-246 of May 23, 1980

   No effect.

7. P.L. 97-304 of October 13, 1982

   a. streamlines the listing process by reducing to 1 year the time period when final action on listing, delisting, and/or critical habitat proposals must be completed; and

   b. implements changes in the exemption process by eliminating review boards and substituting the Secretary of the Interior as the authority responsible for threshold determinations.

8. P.L. 98-327 of June 25, 1984

   No effect.

III. RESPONSIBILITY:

A. Applicability

The Section 7 regulations are applicable to all actions that have discretionary Federal involvement or control. Each Federal agency must confer with the FWS on any action likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. For listed and proposed species

as well as designated and proposed critical habitat, a biological assessment is prepared to determine whether a formal consultation or a conference is necessary.

These procedures are required for major construction activities which are defined as a major Federal action significantly affecting the quality of the human environment, as referred to in the National Environmental Policy Act (NEPA).

For non-major Federal actions, the requirements of these regulations are in effect, however, the preparation of a biological assessment is not required. For each non-major Federal action, a determination of whether the action is likely to jeopardize the continued existence of a listed species or any critical habitat of a listed species should be made and documented. Thus, a letter to the FWS/NMFS requesting a species list or a letter to the FWS/NMFS indicating either "no listed species are in the project area" or presenting a list of species being reviewed initiates the coordination requirement.

B. FHWA Role

The FHWA shall perform the formal consultation procedures, but either the FHWA or the State highway agency (SHA) can perform the informal consultation process.

The Office of Environmental Policy maintains a complete accounting of proposed and listed species, including critical habitat information. This information may be obtained by calling (FTS 366-2068).

C. State Highway Agency Role

50 CFR, Part 402.08, allows a Federal agency to designate a non-Federal representative to conduct informal consultations or to prepare biological assessments. The FHWA has received written authorization from the FWS to allow SHAs to conduct informal consultations and to prepare biological assessments (Appendix 5). Written authority was not received from the NMFS, however, its agency representatives have indicated that the procedure agreed to by the FWS is satisfactory. However, the ultimate responsibility for compliance with Section 7 remains with FHWA.

D. The FWS/NMFS Role

The FWS and the NMFS are charged by Congress with the overall management of the Endangered Species Act and are jointly responsible for 50 CFR, Part 402—Interagency Cooperation. The NMFS is responsible for marine species, and the FWS is responsible for the remaining protected species. For species which spend a part of their life cycle in both fresh water and marine environment, an informal contact with either agency is recommended to obtain jurisdictional information. The appropriate field offices for the FWS and the NMFS are listed in Appendix 7.

IV. PROCESS

A. Overview

There are three basic procedures: (1) informal consultation; (2) early consultation, and (3) formal consultation. Informal and early consultations are designated as optional processes and may be converted to the formal consultation procedure. Formal consultation is required to satisfy the requirements of Section 7 except in the preparation of a biological assessment (Appendix 4) or as a result of an informal consultation, both of which require a written concurrence from the FWS. The written concurrence should indicate that the proposed action is not likely to adversely affect a listed species or critical habitat. A flow diagram is attached (Appendix 6) which charts the formal and informal consultation process. Early consultation is not charted but closely parallels the formal consultation.

B. Informal Consultation

1. The Procedure (Part 402.13)

The informal consultation process includes those steps necessary to determine whether or not formal consultation is required. In the vast majority of highway projects, Section 7 requirements will be met at the conclusion of informal consultation. If the SHA obtains written concurrence from either the FWS or the NMFS, agreeing that the action is not likely to adversely affect listed species or critical habitat, the FHWA is assured that the Section 7 requirements are complete. During this process, the FWS or the NMFS may suggest modifying the proposed action to avoid the likelihood of adverse effects to listed species or to critical habitat. The non-Federal representative (SHA) is encouraged to take the lead in this process if modification of the proposed action is necessary.

2. Relationship to Formal Consultation (Part 402.14(b))

As indicated in the previous section, the informal consultation procedure may complete the process, thus, the formal consultation process is not necessary. However, if the FWS or the NMFS indicates during the informal consultation process that the proposed action may affect a listed species or critical habitat, then formal consultation procedures must be followed unless the proposed project is modified so that "no effect" results. The FWS or the NMFS must then be informed of the change and concur. This completes the process, unless new species or new critical habitat is proposed before project completion. Then the informal consultation process may again be utilized.

3. Relationship to a Conference (Part 402.10)

A conference is a procedural step the Federal agency and the NMFS or the FWS take if a proposed species or proposed critical habitat are involved. The participation of the SHA is encouraged during the conference procedure. If any action is likely to jeopardize the continued existence of any proposed species or adversely modify proposed critical habitat, the FWS or the NMFS will,

subsequent to a conference, make advisory recommendations on ways to minimize or avoid adverse effects. If the species are listed or the critical habitat is designated prior to completing the project, the FHWA must review the action to determine whether formal consultation is required. The criteria used to decide whether to proceed to a formal consultation are:

a. significant new information about the species or critical habitat; or

b. significant changes to the FHWA proposed action.

The conclusions reached at a conference shall be provided to the FHWA by either the FWS or the NMFS. This process may complete the endangered species requirements, unless either criteria listed above develops.

C. Early Consultation

1. The Process (Part 402.11)

These procedures are intended primarily for private-sector applications for a Federal permit or license. The procedure is conducted between the FWS or the NMFS and the Federal agency responsible for issuing the permit or license. However, the prospective applicant should be involved throughout the consultation process. The procedures are essentially the same as the formal consultation but with minor changes in nomenclature.

2. Applicability

This process would not normally be used with Federal-aid procedures. The informal and/or formal consultation process would be most pertinent to the Federal-aid highway process.

D. Formal Consultation

1. The Process (Part 402.14)

The formal consultation procedure follows the informal consultation discussed previously. This procedure begins when a Federal agency or the FWS/NMFS determines that an action is likely to affect listed species or critical habitat. A written request by the Federal agency to the FWS or the NMFS shall include items in Section 402.14(c). If the FWS or the NMFS requests consultation, the Federal agency shall submit the information given in Section 402.14(c) to the FWS or the NMFS, as appropriate. The preparation of the formal consultation information by the Federal agency shall be completed within 90 days with an option to extend an additional 60 days. The FWS or the NMFS shall render the biological opinion within 45 days on its analysis of formal consultation items in Section 402.14(c). The FWS or the NMFS may ask for additional data to make a biological opinion. The biological opinion shall result in either a “no jeopardy” opinion or a “jeopardy” opinion. The process is complete if a “no jeopardy” opinion is issued. If a “jeopardy” opinion is issued, the FHWA can

either drop the project or accept the reasonable and prudent measures necessary to convert the "jeopardy" opinion to a "no jeopardy" opinion.

2. Exceptions – (Part 402.14b)

The endangered species process is completed, prior to entering formal consultation, if:

a. the biological assessment process or results of the informal consultation determines that the proposed action is not likely to adversely affect any listed species or critical habitat (A written notice of concurrence from the FWS or the NMFS must be received.); or

b. a preliminary biological opinion, issued as a result of early consultation, is confirmed by the FWS or the NMFS as the final biological opinion.

3. Responsibility After Issuance of a Biological Opinion

If a "jeopardy" opinion is received by the FHWA, either the FWS or the NMFS, as appropriate, shall be notified, in writing, of our final decision. If the FHWA agrees with the FWS's or the NMFS's recommendations, the process is complete. However, if the FHWA considers the recommendations to be unreasonable, the exemption process is the only option available for advancing the project.

4. Exemption Process

The exemption process is found in 50 CFR, Part 450-453. The procedure for applying for an exemption is listed on sheets 4, 5, and 6 of the flow chart (Appendix 6). The FHWA has not utilized this procedure. There have been only two cases where an exemption was requested (Tellico Dam and Gray Rocks Dam)—neither were exempted.

5. Reinitiation of Formal Consultation

Even though the Section 7 requirements are fulfilled, reinitiation of the formal consultation procedure may be necessary under certain conditions. The reinitiation process may be applied until construction is completed. Either the FHWA or the FWS or the NMFS may reinitiate the formal consultation. The reinitiation of the formal consultation should be considered when:

a. new information changes the effect of the project on listed species or critical habitat not previously considered; or

b. the construction project is modified such that it causes an effect to the listed species or critical habitat that was not considered in the biological opinion, or

c. a new species is listed or a new critical habitat is established that may be affected by the construction project.

V. SPECIAL CONCERNS

A. Candidate Species

For the first time, the term "candidate species" is officially embodied within regulation. The term has caused confusion when it appeared in letters from the FWS and the NMFS by implying legal protection. Paragraph 402.(d) clearly specifies the status of candidate species.

"Candidate species" refers to any species being considered by the FWS or the NMFS for listing as endangered or threatened species but are not yet the subject of a proposed rule. Although candidate species have no legal status and are accorded no protection under the Act, these species are receiving consideration by experts for possible listing in the future.

B. Biological Assessment (Part 402.12)

A biological assessment is the process which determines the potential effect a construction project will have upon listed and proposed species and designated and proposed critical habitat. The assessment may be accomplished by the non-Federal representation, but in all cases, it remains a Federal responsibility under the oversight of the FHWA. The biological assessment procedure is for the purpose of determining whether formal consultation or a conference is necessary or whether the endangered species requirements are fulfilled. The key steps for the biological assessment procedures are included on sheet 2 of the flow chart (Appendix 6).

C. Permit Stage

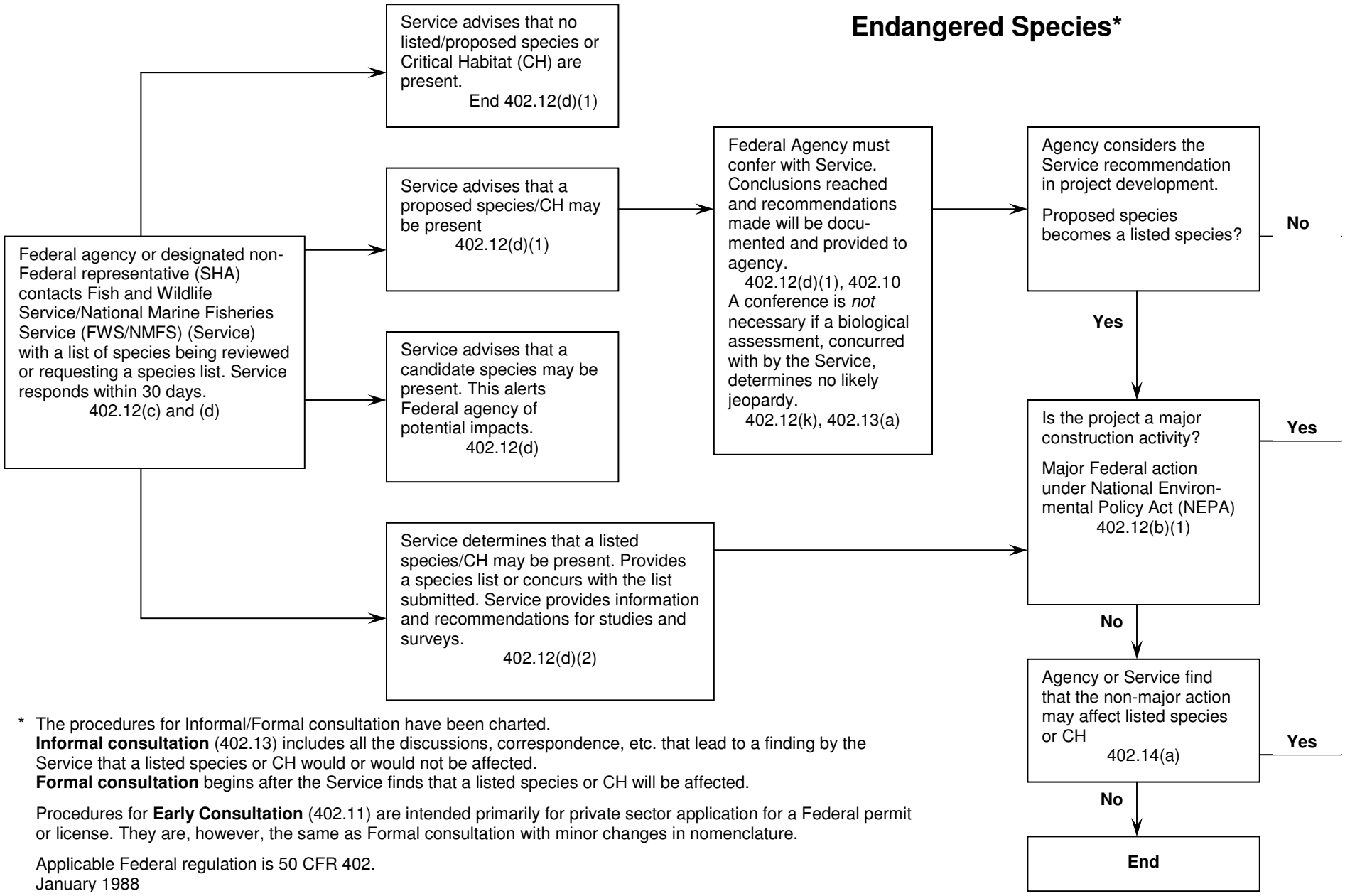
All Federal agencies responsible for issuing permits are also required to meet the mandates of the Endangered Species Act. In most cases, the endangered species process completed by the applicant during the environmental stage will suffice. However, especially if several years have lapsed after completion of the process, the SHA should screen the protected list for new species or correspond with the appropriate office of either the FWS or the NMFS. It is anticipated that in most cases the consultation process, completed during the EIS stage, will suffice.

VI. CONCLUSION

In general, the FHWA has not found the requirements of Section 7 of the Endangered Species Act to be onerous. The two areas of difficult encountered to date involved: (1) lack of sufficient scientific data by the FWS to support its recommendations; and (2) suggested alternatives (mitigation) that are not eligible for FHWA participation.

The guidance discussed in this paper is generally completed during the environmental process. Federal-aid is processed normally, as long as the requirements discussed previously are satisfied. Federal-aid will be delayed until requirements of the Endangered Species Act are met (see the flow chart in Appendix 6).

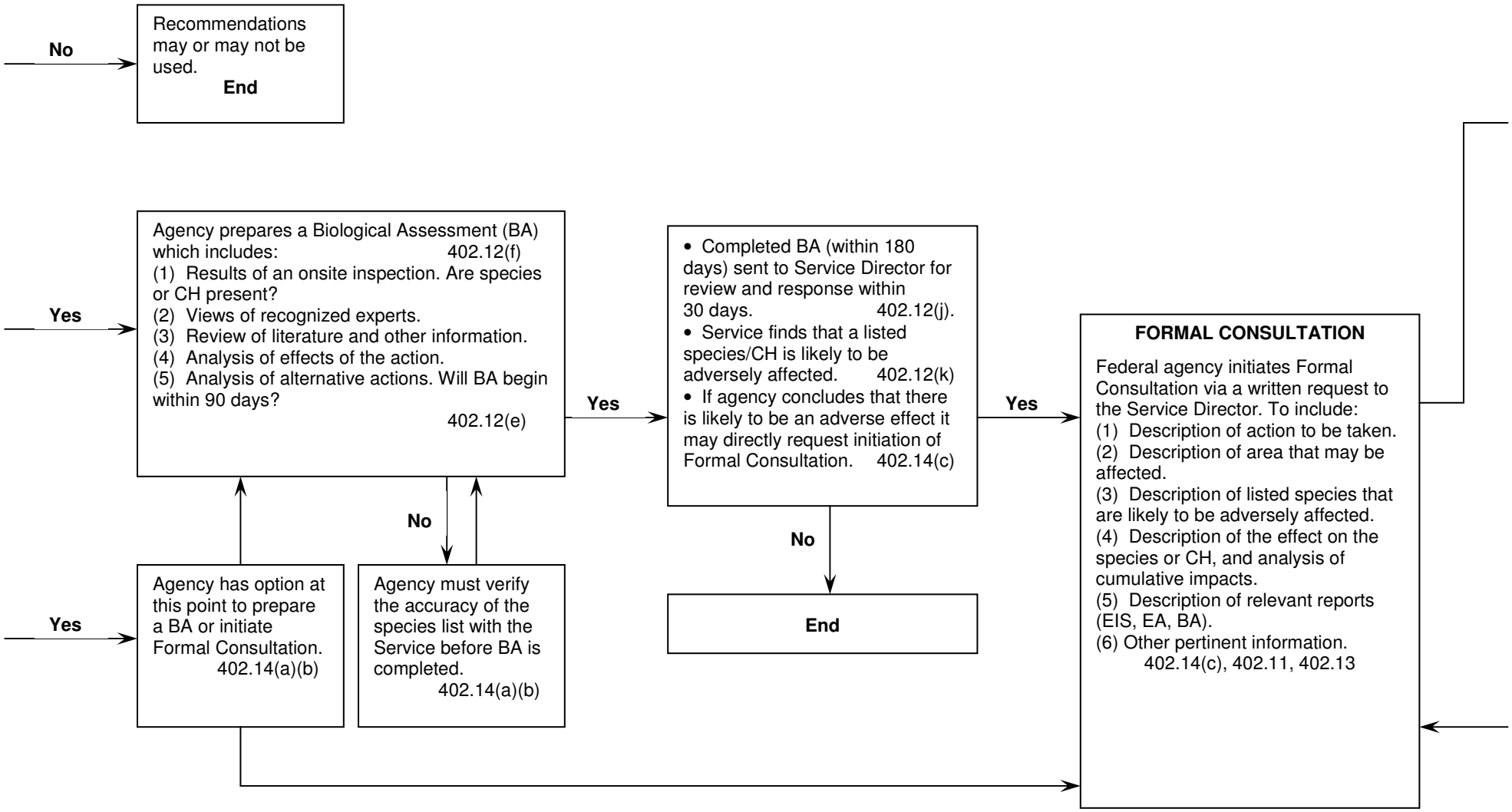
Endangered Species*

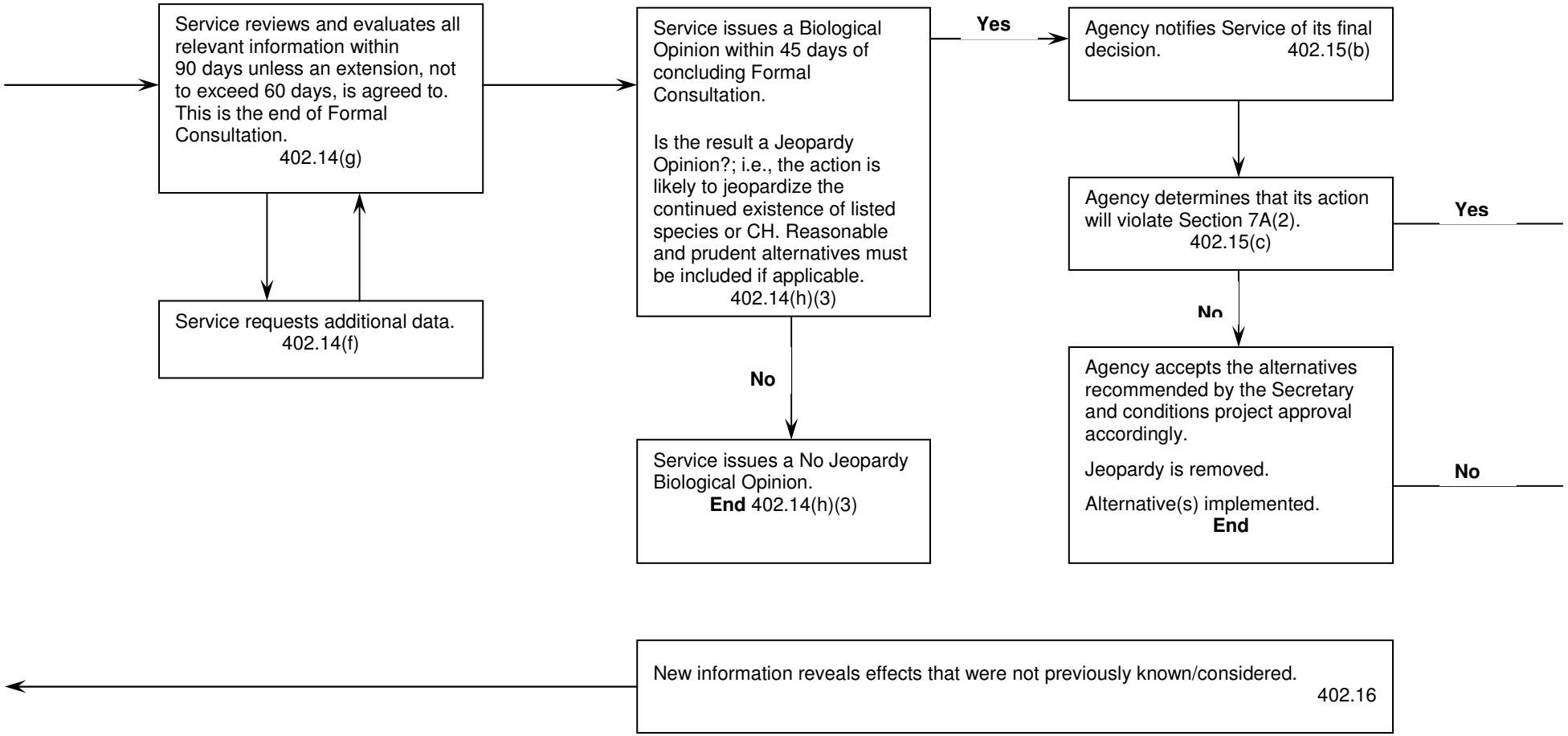


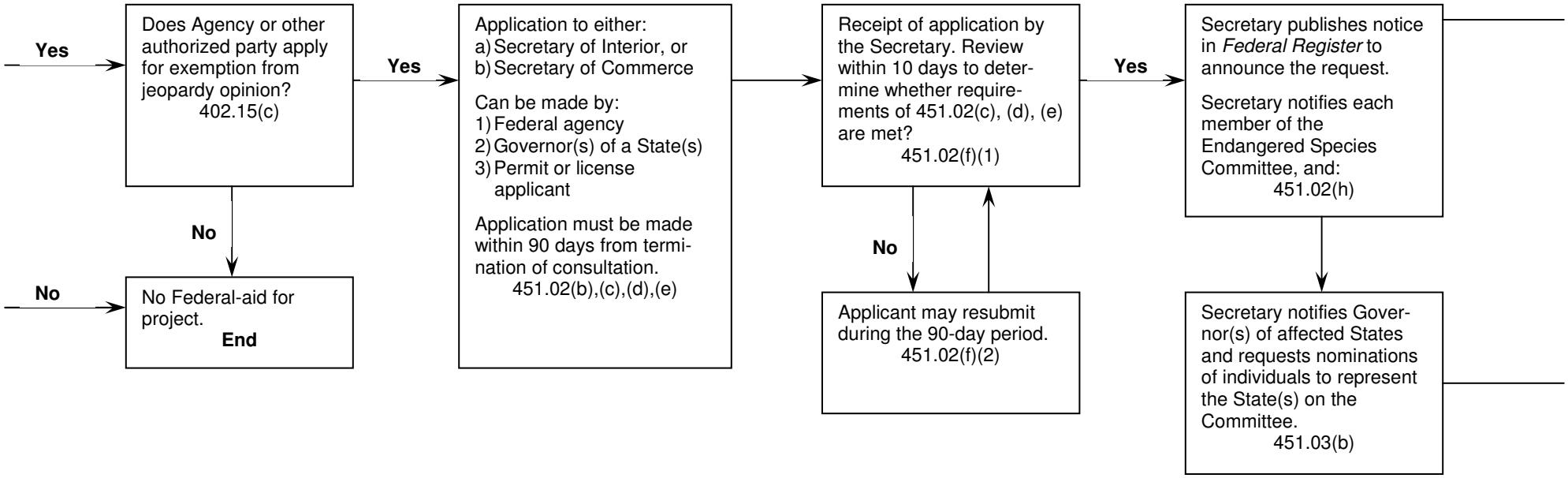
* The procedures for Informal/Formal consultation have been charted.
Informal consultation (402.13) includes all the discussions, correspondence, etc. that lead to a finding by the Service that a listed species or CH would or would not be affected.
Formal consultation begins after the Service finds that a listed species or CH will be affected.

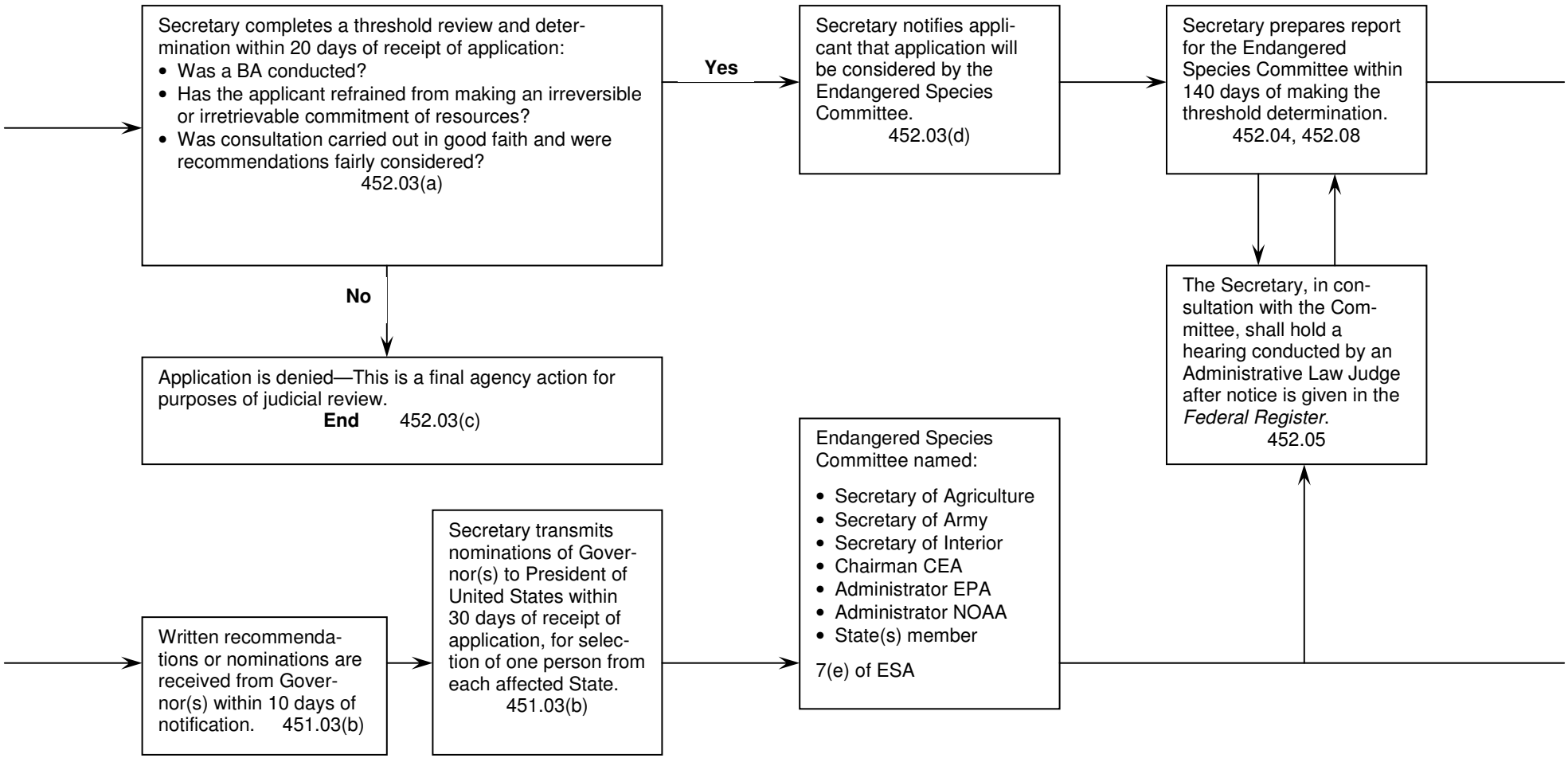
Procedures for **Early Consultation** (402.11) are intended primarily for private sector application for a Federal permit or license. They are, however, the same as Formal consultation with minor changes in nomenclature.

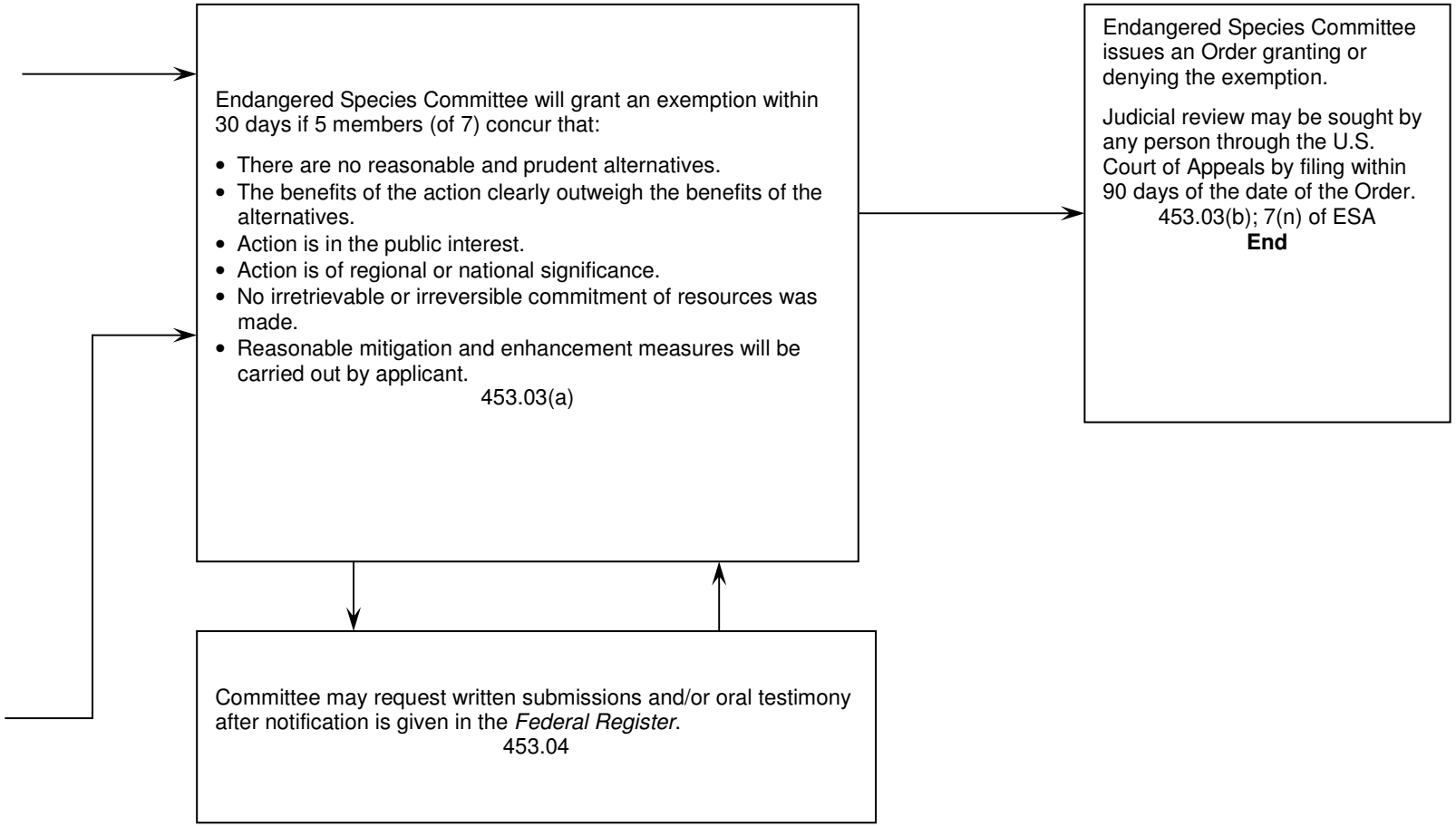
Applicable Federal regulation is 50 CFR 402.
January 1988


No
Recommendations may or may not be used.
End
Yes
Agency prepares a Biological Assessment (BA) which includes: 402.12(f)
(1) Results of an onsite inspection. Are species or CH present?
(2) Views of recognized experts.
(3) Review of literature and other information.
(4) Analysis of effects of the action.
(5) Analysis of alternative actions. Will BA begin within 90 days?
402.12(e)
Yes
• Completed BA (within 180 days) sent to Service Director for review and response within 30 days. 402.12(j).
• Service finds that a listed species/CH is likely to be adversely affected. 402.12(k)
• If agency concludes that there is likely to be an adverse effect it may directly request initiation of Formal Consultation. 402.14(c)
Yes
FORMAL CONSULTATION
Federal agency initiates Formal Consultation via a written request to the Service Director. To include:
(1) Description of action to be taken.
(2) Description of area that may be affected.
(3) Description of listed species that are likely to be adversely affected.
(4) Description of the effect on the species or CH, and analysis of cumulative impacts.
(5) Description of relevant reports (EIS, EA, BA).
(6) Other pertinent information.
402.14(c), 402.11, 402.13
No
No
End
Yes
Agency has option at this point to prepare a BA or initiate Formal Consultation.
402.14(a)(b)
Agency must verify the accuracy of the species list with the Service before BA is completed.
402.14(a)(b)


Service reviews and evaluates all relevant information within 90 days unless an extension, not to exceed 60 days, is agreed to. This is the end of Formal Consultation.
402.14(g)
Service requests additional data.
402.14(f)
Service issues a Biological Opinion within 45 days of concluding Formal Consultation.
Is the result a Jeopardy Opinion?; i.e., the action is likely to jeopardize the continued existence of listed species or CH. Reasonable and prudent alternatives must be included if applicable.
402.14(h)(3)
Yes
No
Service issues a No Jeopardy Biological Opinion.
End 402.14(h)(3)
Agency notifies Service of its final decision. 402.15(b)
Agency determines that its action will violate Section 7A(2).
402.15(c)
Yes
No
Agency accepts the alternatives recommended by the Secretary and conditions project approval accordingly.
Jeopardy is removed.
Alternative(s) implemented.
End
No
New information reveals effects that were not previously known/considered.
402.16


Yes
Does Agency or other authorized party apply for exemption from jeopardy opinion?
402.15(c)
Yes
Application to either:
a) Secretary of Interior, or
b) Secretary of Commerce
Can be made by:
1) Federal agency
2) Governor(s) of a State(s)
3) Permit or license applicant
Application must be made within 90 days from termination of consultation.
451.02(b),(c),(d),(e)
Receipt of application by the Secretary. Review within 10 days to determine whether requirements of 451.02(c), (d), (e) are met?
451.02(f)(1)
Yes
Secretary publishes notice in Federal Register to announce the request.
Secretary notifies each member of the Endangered Species Committee, and:
451.02(h)
No
No Federal-aid for project.
End
No
Applicant may resubmit during the 90-day period.
451.02(f)(2)
Secretary notifies Governor(s) of affected States and requests nominations of individuals to represent the State(s) on the Committee.
451.03(b)


Secretary completes a threshold review and determination within 20 days of receipt of application:
• Was a BA conducted?
• Has the applicant refrained from making an irreversible or irretrievable commitment of resources?
• Was consultation carried out in good faith and were recommendations fairly considered?
452.03(a)
Yes
Secretary notifies applicant that application will be considered by the Endangered Species Committee.
452.03(d)
Secretary prepares report for the Endangered Species Committee within 140 days of making the threshold determination.
452.04, 452.08
No
Application is denied—This is a final agency action for purposes of judicial review.
End 452.03(c)
The Secretary, in consultation with the Committee, shall hold a hearing conducted by an Administrative Law Judge after notice is given in the Federal Register.
452.05
Endangered Species Committee named:
• Secretary of Agriculture
• Secretary of Army
• Secretary of Interior
• Chairman CEA
• Administrator EPA
• Administrator NOAA
• State(s) member
7(e) of ESA
Written recommendations or nominations are received from Governor(s) within 10 days of notification. 451.03(b)
Secretary transmits nominations of Governor(s) to President of United States within 30 days of receipt of application, for selection of one person from each affected State.
451.03(b)


Endangered Species Committee will grant an exemption within 30 days if 5 members (of 7) concur that:
• There are no reasonable and prudent alternatives.
• The benefits of the action clearly outweigh the benefits of the alternatives.
• Action is in the public interest.
• Action is of regional or national significance.
• No irretrievable or irreversible commitment of resources was made.
• Reasonable mitigation and enhancement measures will be carried out by applicant.
453.03(a)
Endangered Species Committee issues an Order granting or denying the exemption.
Judicial review may be sought by any person through the U.S. Court of Appeals by filing within 90 days of the date of the Order.
453.03(b); 7(n) of ESA
End
Committee may request written submissions and/or oral testimony after notification is given in the Federal Register.
453.04

Guidance on Placement of Concrete Barriers

ENVIRONMENTAL SERVICES OFFICE

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

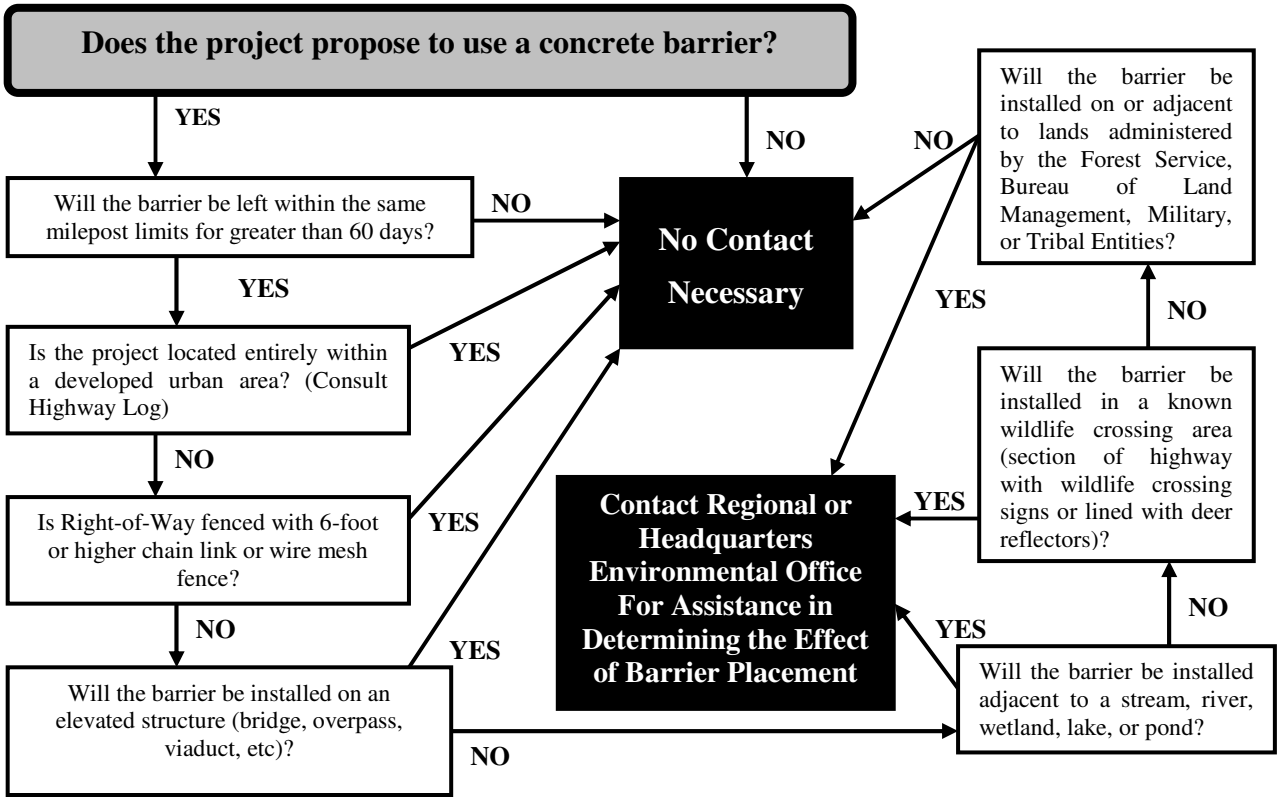
October 2002

PURPOSE

The purpose of this document is to facilitate collaboration between Design and Environmental staff in determining the effect of concrete barrier placement on wildlife and public safety. The placement of concrete barriers in locations where wildlife frequently cross the highway can influence traffic safety and wildlife mortality. When wildlife encounter physical barriers that are difficult for them to cross, they often travel parallel to those barriers. With traffic barriers, this means that they often remain on the highway for a longer period, increasing the risk of wildlife/vehicle collisions or vehicle/vehicle collisions as motorists attempt avoidance. Traffic-related wildlife mortality may play a role in the decline of some species listed under the Endangered Species Act.

To address public safety and wildlife concerns, the following decision matrix (**Figure 1**) will be used by the Design Office to determine if an evaluation by the Environmental Office is necessary regarding the placement of concrete barriers and the possible impacts to wildlife. This collaboration will occur early in the project development phase to ensure adequate time for discussion of options.

Figure 1. Decision Matrix
(used by Design Office to determine the need for consultation with the Environmental Office).



DESIGN PROCESS

When WSDOT projects are designed to use concrete barriers, the potential for impacts to wildlife and the safety of the traveling public may occur. The questions in the decision matrix (**Figure 1**) are designed to establish a set of parameters where the placement of a barrier will most likely affect wildlife, and initiate contact with the Environmental Office. Each of these decisions and associated justifications are outlined in **Table 1**.

Table 1. Decision Matrix Questions and Justification.

MATRIX DECISION	JUSTIFICATION
Does the project propose to use a concrete barrier?	If the project does not propose the use of a barrier, continuing is not necessary.
Will the barrier be left within the same milepost limits for greater than 60 days?	If the project will temporarily use concrete barriers (<60 days), contact is not necessary due to the low potential for a wildlife encounter during construction activities.
Is the project located entirely within a developed urban area? (Consult Highway Log)	The WSDOT State Highway Log classifies each section of roadway in the State as Rural or Urban. In general, urban areas are not considered high-risk due to the low potential for wildlife occurrences.
Is Right-of-Way fenced with 6-foot or higher chain link or wire mesh fence?	Areas with this type of fencing are likely to preclude use of the roadway by wildlife that could be affected by a barrier.
Will the barrier be installed on an elevated structure (bridge, overpass, viaduct, etc)?	Wildlife crossing would be unlikely on elevated structures.
Will the barrier be installed adjacent to a stream, river, wetland, lake, or pond?	Riparian areas have high likelihood of use by wildlife.
Will the barrier be installed in a known wildlife crossing area (section of highway with wildlife crossing signs or lined with deer reflectors)?	These areas have already been identified as high-use areas by wildlife.
Will the barrier be installed on or adjacent to lands administered by the Forest Service, Bureau of Land Management, Military, or Tribal Entities?	Lands administered by these Agencies are likely to contain habitat conducive to use by wildlife. Also, other laws and regulations may apply which protect species on Federal lands.

ENVIRONMENTAL REVIEW

Regional and/or Headquarters biologists will be contacted by Design offices if a proposed project involves using a concrete barrier for longer than 60 days in the following areas: riparian habitats, including rivers, lakes, streams, ponds, and wetlands; known wildlife crossing areas, or; on or adjacent to lands under the jurisdiction of the Forest Service, Bureau of Land Management, Military, or Tribal Entities. Once contacted, the biologist should assess the project effects of barrier placement on wildlife. Biologists have several tools available to assess the impact of barrier placement.

- **Topographic Maps**
  -Check for natural wildlife crossings
  -Topography may limit wildlife crossing to a particular section of highway
- **Aerial Photos**
  -Establish stand structure and size of contiguous habitat
  -Wildlife will likely cross by using larger stands of existing cover
- **WSDOT Deerkill Database**
  -The Deerkill Database can provide mortality data for each State Highway
  -The database identifies problem crossing areas
- **WDFW Priority Habitats and Species Database**
  -PHS Database can identify wildlife use in an area
  -Known occurrences and wintering or breeding ranges can be determined

After review of the available resources, a site visit may need to be scheduled. If it is determined that placement of concrete barriers may affect wildlife or increase threats to public safety, the next step is to work with the Design Office to avoid or minimize impacts through design changes. There will not be a single solution to minimizing impacts. This is why it is critical to complete this process early in the project development stage, so adequate time is available to discuss options. These options may include, but are not limited to:

- Alter project design to include a break in the barrier at a determined location. The distance to these locations will vary depending on the species that are using the section of roadway and site-specific conditions. For example, amphibians or small mammals might require a gap every 50 feet, while large mammals may use a gap every 300 feet to exit the roadway. The gap in the barrier can be as simple as installing a section of guardrail, similar to those used at drainage inlets, or changing the type of barrier.
- Right-of-way exclusionary fencing would be an option to keep wildlife off the section of highway where barrier placement is necessary and no other alternative exists.
- A change in barrier type may allow wildlife to cross. For example, changing from a 42-inch single-slope barrier to a 32-inch jersey barrier may meet the design needs of the project while allowing wildlife to cross.

The use of this guidance will obviously not eliminate wildlife mortality on our State Highways. However, the collaboration between WSDOT Design and Environmental Staff when using concrete barriers will improve survival of species listed under the Endangered Species Act and ensure that the Agency meets its responsibility for sound stewardship of all species.